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CLEVELAND, OHIO, DECEMBER 5, 1895.

NO. 49

SHIP BUILDING AND REPAIRS.

MORE NEW CONSTRUCTION.

Cleveland has been the Mecca of ship-builders during the past ten days, but according to all accounts, the builders from out of town have gone home empty-handed. The firm of Pickands, Mather & Co., is the channel through which a large contract is about to be or has already been let, but there seems to be a general ignorance as to the identity of the parties for whom the ships are to be built. It is known, however, that the contract calls for the construction of two or more steel steamers of the largest size, to be completed during the next season. While the officials of the Globe Iron Works Co., have asked to be excused from discussing the matter for a little while, the indications are such as to warrant the statement that the contract is practically in the hands of this firm. The new boats will probably form the nucleus of a large company about to be formed, and the award will probably be an assurance of other contracts to follow as soon as the yards can accommodate them.

General Manager James C. Wallace of the Cleveland Ship-building Co., returned this (Thursday) morning from Duluth, bringing with him an order for a large tug, for the Duluth & Iron Range Railroad Co. The company has practically had this contract since October, but details regarding construction had not been completed until lately. The new tug is to be 100 feet long, over all, by 23 feet beam, and 13 feet depth of hold, with a four-foot water bottom. Hull, decks and houses will be constructed of steel. She will be propelled by a compound engine, with cylinders 18 and 40 inches diameter by 30 inches stroke. Steam will be furnished by a Babcock & Wilcox boiler, tested to 175 pounds working pressure. She will have hydraulic steering gears, and is to be used at Two Harbors for harbor towing, and also as a small business boat to carry the company's officials. The house forward will have an especially fine finish, with a view to furnishing good quarters for the officials when the yacht is in their service.

Owing to the pressure of work at the Detroit Dry-dock Co.'s yard the Northwestern Transportation Co. has decided not to lengthen the steamers Fayette Brown and E. M. Peck 50 feet this winter, as had been intended.

Capt. A. D. Littlefield, who is superintending the construction of the revenue steamer John G. Carlisle, at the Globe Shipyard, received advices from Washington to-day announcing that Lieut. J. W. Moore, who has been on duty on the government steamer Crawford, at Baltimore has been detailed to assist him, and would be in Cleveland in a few days. Capt. Littlefield has not needed assistance so far. The material has been somewhat delayed, and although all the plates are in the yard, the fitting of the angles have just been shipped by Penoyd, of Philadelphia, and will arrive in a week, if the railroad company is expeditious. Nothing but the keel is now visible in the yard, but after the arrival of the angles construction will probably proceed rapidly. Work

SAULT REPORT FOR NOVEMBER.

November reports of the canals at St. Mary's Falls do not come as near as usual in past years to showing, when taken with the previous months, the full commerce of the season, for the reason that the lockages after December 1 have been rather ahead of past seasons, and that some cargoes of ore, and many loads of grain and coal have passed through the canal during the early days of the present month.

The total of ore shipments from Lake Superior ports, as given in the tables which appear below, are 8,040,558 net or 7,179,070 gross tons. This is an increase over last year to December 1, of 1,495,910 net tons, or 1,336,170 gross tons, and over the entire season of 1894 by 1,491,682 net tons, or 1,331,859 gross tons.

Bituminous coal shipments to Lake Superior, except those cargoes shipped through the canal since December 1, aggregate 2,108,244 net tons, showing a decrease as compared with the corresponding period last year of 56,070 tons. This falling off will probably be offset to a large extent, however, by the passages of coal-laden vessels through the Sault in December, as no coal passed up last year after December 1.

Flour shows a falling off, as compared with the corresponding period of 1894, of 124,676 barrels. This decrease will be about the same for the season, as several large cargoes of flour passed down after December 1, last year.

Wheat shipments to December 1 show the very large increase of 8,321,394 bushels, as compared with the same period last season, and increased December shipments this year will very largely augment this showing.

During the month of November General Superintendent Wheeler reports that there were 768 lockages through the American canal, 1,447 vessels passing through having a registered tonnage of 1,498,096. The itemized statistics for the month, and for the season to December 1 for 1894 and 1895 are as follows:

EAST BOUND.				
ITEM.	Nov. 1894.	Nov. 1895.	To Dec. 1, 1894.	To Dec. 1, 1895.
Copper, net tons	12,914	12,866	98,833	107,017
Corn, bushels			1,530,008	80,859
Building stone, net tons	1,122	1,491	21,417	23,410
Flour, barrels	1,502,555	1,359,077	8,738,123	8,447,845
Iron ore, net tons	433,500	464,603	6,544,648	7,823,988
Iron, pig, net tons	1,405	3,620	21,068	24,181
Lumber, M.	70,295	41,438	718,938	725,809
Silver ore, net tons			412	100
Wheat, bushels	7,993,794	12,355,253	34,495,882	34,309,082
Unclassified freight, net tons	47,669	6,294	181,690	130,482
Passengers, number	472	271	13,869	15,129
WEST BOUND.				
ITEM.	Nov. 1894.	Nov. 1895.	To Dec. 1, 1894.	To Dec. 1, 1895.
Coal, anthracite, net tons	97,454	82,113	526,470	417,677
Coal, bituminous, net tons	225,268	224,360	2,264,314	1,986,241
Flour, barrels			783	2,150
Grain, bushels			10,500	35,650
Manufactured iron, net tons	7,310	10,304	36,107	73,453
Salt, barrels	63,287	48,649	237,461	263,079
Unclassified, net tons	43,688	40,077	268,903	287,585
Passengers, number	115	90	12,331	15,775
East bound freight, net tons				1,115,504
West bound freight, "				363,869
Total				1,479,373

The monthly report of Supt. J. Boyd, of the Canadian

Canal at St. Mary's Falls, for the month of November, and for the period since its opening—September 9 to November 30, inclusive—is as follows:

EAST BOUND.		
	Nov. '95.	To Dec. 1.
Iron ore, net tons	32,748	216,570
Copper, net tons		305
Wheat, bushels	1,561,209	4,508,194
Other grains, bushels	102,368	710,220
Lumber, ft B. M.	981,000	12,485,141
Manufactured iron, net tons	502	502
Flour, barrels	19,608	165,602
Stone, lime, etc., net tons	2,100	3,016
Merchandise unclassified, net tons	77	5,593
Passengers, number	16	1,409
WEST BOUND.		
	Nov. '95.	To Dec. 1.
Coal, bituminous, net tons	23,626	121,563
Coal, anthracite, net tons	8,750	27,600
Iron manufactured, net tons	113	1,513
Salt, barrels	4,440	8,918
Coal oil, barrels	22,459	34,256
Merchandise, unclassified, net ton	6,270	21,034
Passengers, number	36	1,189
Eastbound freight, net tons	88,638	352,276
Westbound freight, net tons	43,009	179,107
Total	131,647	531,383

A FEW LATE CHARTERS.

Owners of the better classes of boats are determined to keep them out as long as there is any hope of them getting from port to port. Insurance risks are good until December 15, and can be extended until the 20th if boats do not get to destination before the middle of the month. One owner wrote his underwriters this week for an extension until the 20th, stating that if permission was granted he would make a round trip from Lake Michigan, but if it was not he would send his boat from Lake Michigan to Lake Superior for another cargo. The permission was promptly given, and it was very wise, from an underwriter's point of view. Some of the late cargoes from Chicago are paying more than 3c, when the destination is not Buffalo or Erie. Owners are rather holding off for 4c to Buffalo now. Last shipments from Duluth and Fort William are made, it is claimed, at 7c. Late coal cargoes have been paying 60c to the head of Lake Superior, 60c to Gladstone, 75c to Milwaukee, and 85c to Sheboygan.

Wheat in store at the head of the lakes is apportioned among the various terminal elevator lines as follows:

	Bushels.
Belt Line	750,516
Consolidated	1,504,516
Globe	1,979,111
Great Northern	203,877
Superior Terminal	695,438
Consolidated H.	51,133
Consolidated B.	161,054
Aggregate	5,248,617
Wheat in store at Minneapolis	15,699,749

Wind signals will be discontinued on Lake Superior when the canal closes; on Lakes Michigan and Huron, except at Chicago, Milwaukee, Grand Haven, Ludington, and Manistee, on December 10; Lakes St. Clair, Erie, and Ontario, on December 15.

(CONTINUED ON SEVENTH PAGE.)

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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TITUTION TO THE CANADIAN GOVERNMENT.

The Lake Carriers' Association is circulating copies of the following petition among its members and other owners of vessel property, as well as among the masters, for signatures:

To the Department of Marine and Fisheries, Ottawa, Canada:

The undersigned, owners of vessels engaged in the commerce of the Great Lakes, desire to respectfully direct your attention to the large number of accidents that have occurred during the past season in the vicinity of Point au Pelee, Lake Erie. Details regarding some of these accidents, all of which resulted in heavy money losses, and in most cases serious danger of loss of life, are contained in protests which were filed with insurance companies, copies of some of which accompany this petition.

Your aid is respectfully solicited in your own department, and in such other departments of the Canadian government as may have to do with life-saving stations, light-houses, etc., in bringing about the changes suggested herewith:

1. It is the opinion of your petitioners that the life-saving crew, now located on Point au Pelee Island, would find occasion more frequently to render assistance to vessels in distress if the station was moved from the island to the point on the mainland, as all of the accidents here referred to have occurred in the vicinity of the point, and in places where the wrecks could not be seen from the life-saving station. In no case this season has any assistance been rendered to twenty or more vessels that have been aground off the point and on the middle island.

2. Your petitioners suggest that the light on the island be removed to the middle ground in Point au Pelee Passage, as the shoal is of an exceedingly dangerous kind, and as it is directly in the passage can be marked properly only by a light-house.

3. Your petitioners respectfully urge the necessity of establishing a light-ship to the southward and eastward of Point au Pelee, where full twenty or more vessels have stranded this season.

4. It is further suggested that navigation in this part of Lake Erie would be made much safer by the establishment of a light-ship or large nun buoy at Little's Point, as two or three accidents, involving heavy loss, have occurred at that point.

5. During the past season especially, there has been considerable striking and grounding of vessels in the Detroit River, between Amherstburg and Bois Blanc Island. Your petitioners respectfully direct your attention to the great advantages that would be derived by vessels of your own country, as well as vessels of the United States, through the removal by dredging of the shoal spots at this point.

SECRETARY HERBERT has before him the report of Chief Naval Constructor Hichborn and Engineer-in-Chief Melville, recommending the acceptance of the ram Katahdin. This recommendation is based on an

argument that the ram is an experimental vessel, and that being such a speed should never have been exacted. It is also stated that there is nothing in the law requiring a stated speed and that as its insertion in the contract was an act of the secretary of the navy, the secretary can now waive this provision of the contract.

A VERY GRAVE ABUSE.

Vessel masters have had their attention called very often to the practice referred to in the letter published below, but it does not seem to induce all of them to drop the habit, which needlessly endangers hundreds of lives in the course of a season. There is scarcely a station on the lakes that could not offer the same complaint. This letter is from Capt. William Babb, hotel proprietor at Goderich, Ont., who is also interested in the volunteer life-saving service at that port:

To the Editor of The Marine Record:

I wish to call to your notice a practice of masters of vessels, who, when disabled and in sight of a life-saving station, hoist a signal of distress—an inverted ensign—when their lives are in no danger, but when they need only the services of a tug to get them into port. The duty of life-savers is primarily to save life, and it is entirely unnecessary to call upon them to row out the entire distance, often at considerable risk to themselves, to learn that a tug only is needed and desired. If masters need a tug only, let them make the proper signal, of dropping the "fly," and the lookout will so report. A tug will arrive all the sooner, and the service will be saved much arduous and needless exertion.

A specimen of this usage was given to the Point aux Barques crew only a short time ago, through the same mistake. Those men had to suffer in that gale for 24 hours, which might have cost them their lives. Too much praise cannot be given to that crew for their brave endurance in that most inclement weather.

WILLIAM BABB.

Volunteer L. S. Station,
Goderich, Ont., November 25.

The trip to which Capt. Babb refers is evidently that taken to the assistance of the schooner Mike Corry, which afterward went to Goderich with the assistance of a tug. The gale was at its height and the wind blowing fifty miles an hour from the north, when the disabled schooner's signals were descried eight miles away. The life-boat was launched and the crew started, but as the wind was blowing so hard they gained slowly on the schooner, and she was fifteen miles from shore when they overhauled her. She had then lost part of her deck-load of lath, and the captain said he thought the schooner was in no imminent danger, but asked the crew to return and send him a tug from Sand Beach. Owing to the heavy seas and ice, the crew could not make Sand Beach, but they effected a landing at Port Sanilac, sixty miles from their station, having made a trip of over 100 miles in all, and having been out 24 hours with the thermometer almost at zero, during the night, and in such a sea that the largest steamers were forced to remain in shelter. The life-boat, on their arrival at Port Sanilac, had more the appearance of an iceberg than any kind of a craft, and the crew were unable to remove their clothing until they had been thawed out. Several had their hands, faces and feet frost-bitten, and have suffered considerably since.

There are always two sides to every story, and it may have been that the danger to the Corry at the time she signaled was such that the services of the crew were deemed necessary, and that before the crew had reached her she had shown such relief after the loss of her deck-load that her master realized that their personal danger was over, and that the early services of a tug would be all the assistance he would need. Such a trend of affairs would certainly tend to exonerate the master of the Corry in this instance; but it remains a fact that this is a practice that is only too common, and has been known to take the crew away from their station at a time when their services were really needed elsewhere before they could get back. This is a matter which Supt. Kimball should lay before Congress, through the Secretary of the Treasury, during the present session. Legislation could easily be drafted which would provide against this sort of abuse of one of the most efficient departments of the government's service, and would be of great benefit to the lakes. When lake masters remember that the crew can read their signal for a tug as readily as a signal for immediate assistance, and that the station can in turn signal to vessels that her requirements have been understood and are being complied with, the situation will be much simplified and matters expedited for all parties concerned.

SECRETARY HERBERT'S ANNUAL REPORT.

The annual report to the President of the Secretary of the Navy Department states that three battleships will be completed within seven months—the Terror and Monadnock by February 1, 1896, and the Puritan by July 1. "The department," he says, is pleased to be able to testify its high appreciation of the superior excellence of the workmanship done generally by the establishments that have built the ships constituting our new navy. Disinterested and competent critics unite in saying that in thoroughness and finish of work the ships of our new navy are unexcelled, and, indeed, seldom equaled in the world. This result is largely due to the ingenuity and fidelity of the American mechanic, actuated by a laudable desire to entitle himself fairly to the large wages he earns, and it is contributed to in no small degree by the rigid inspection of material and workmanship by trained and skilled officers, who, as they are to man these ships, have every possible incentive to the strictest performance of duty."

An item of \$300,000 is asked for to put new boilers and engines in the Chicago, and to increase her fuel capacity, and \$100,000 with which to begin the construction of new engines for the Hartford. The machinery of the Atlanta has been worn out in service, and it is necessary to replace it with new. Authority is asked to enlist 1,000 more men.

"It is respectfully suggested that in order to be able to man our reserve fleet and such vessels as may not have full crews, the President be authorized to enlist in the naval service, upon exigencies to be judged of by him, such of the naval militia and other men, not to exceed altogether the number necessary to man all the ships of the navy and such ships as under the laws now existing, or hereafter to be enacted. These the government may have the right to call into its service for a period of, say, two years, the government reserving the privilege of discharging when the exigency may have passed. * * *

"The naval militia is slowly but surely, through a natural evolutionary process, finding its best field as a factor in national defense and as an auxiliary to the regular navy. Its main element of strength lies primarily in a fine personnel, marked by great patriotism, zeal, enthusiasm, and a high degree of intelligence. They are composed of like material as our national guard militia, and bear to the navy much the same relation as do our much prized local military companies to the army of the United States.

"It would be hard in any country to find a finer body of physically and mentally well-developed young men than those in these organizations. It is no exaggeration to say that they are among the very best of our citizens. These organizations now encircle our coast and seem as enthusiastic in the Great Lakes region as on the seaboard. To make them efficient and of real service they must be kept in constant and at stimulating touch with this department. Their general importance is admitted; it remains to fix their general status as a naval or military organization."

Secretary Herbert estimates the running expenses of the navy at \$19,672,783.20. For increase of the navy he asks for \$9,638,383, which makes a grand total of \$29,311,166.20, as compared with \$29,334,025.36 appropriated for 1896.

The Secretary recommends the construction of two more battleships, and at least twelve torpedo boats. He calls attention to the reduction in prices of naval vessels. The price per ton for the gunboats Machias and Castine, contracted for in April, 1890, was \$302.86; the average price of the three gunboats contracted for in January, 1894, and of the six others just let out to contract is \$222.34 per ton, a saving of \$80.52 per ton, or 26 per cent of the price of the ships. The price of the Ericsson, contracted for in October, 1891, was \$945.83 per ton. The average price of the six torpedo boats contracted for in 1895 is \$766.58 per ton, a reduction of \$179.25 per ton, or about 20 per cent. in the prices of these boats. These prices compare very favorably with the prices for similar work done abroad.

"Great Britain, as usual, is leading, both in the number and strength of ships in service and in building programme. With 274 ships in service, not including torpedo boats, she has 42 vessels now under construction, of which ten are battleships. It will be observed that in accordance with England's policy of placing her first line of defense on her enemy's coast, no coast defense vessels are building for that country. The displacement of the first-class battleships in her present programme is 14,900 tons; of her second class, 12,350 tons."

BIDS ON NEW BATTLESHIPS.

Bids were opened at the Navy Department last Saturday on the two battleships, the government specifications for which were given in the RECORD November 7. These vessels will be slightly larger than the Iowa and Indiana. They will look very much like the Indiana, an illustration of which appeared in the RECORD November 14, but instead of the one tall fighting mast will have two, possibly not quite so high. Secretary Herbert, of the Navy Department, has decided to place on them a ram something like that of the battleship Texas.

The lowest bidder was the Newport News Ship Building and Dry-dock Co., which offered to construct one for \$2,350,000, or both for \$4,500,000.

Cramp & Sons offered to build one on the department's plans for \$2,820,000, or both for \$2,750,000 each. Then they submitted plans of their own, by which they agreed to build three ships, with complete armor for the hulls of two of them, for \$8,000,000. Then they offered to build two ships on their own plans, with armor for both hulls and guns, for \$3,850,000 each, and finally offered to build one battleship on another set of original plans submitted, for \$2,500,000, or both for \$2,450,000, each.

The Union Iron Works, of San Francisco, bid on the department's plans \$2,740,000 for one, or \$2,690,000 each for two. On their own plans they bid \$2,650,000 for one, and \$2,640,000 for each of two ships.

The bids have not been passed upon, but the Union Iron Works will undoubtedly build one, as the law appropriating the funds provides that one shall be built on the Pacific coast if the bids are reasonable. The Union Iron Works' bid is about \$250,000 less than the contract price on the Iowa.

A COLLECTION OF INTERESTING PAPERS.

Mr. Edwin H. Whitney, M. E., formerly with the American Ship Windlass Co., contributes to the December number of Cassier's Magazine a very thorough and interesting history of "The Development of the Ship Windlass," which is illustrated with 31 views and mechanical drawings of types used in the past and present, and tracing the history of the device down from the earliest times. Among the illustrations are the windlasses put out by the American Ship Windlass Co., the Bath, Me., Iron Works, and the Globe Iron Works Co., of Cleveland; also the Chase Elevator and Manton Windlass Co., of Warren, R. I. Another article in this number which is deserving of close attention on the part of the marine fraternity is a paper by Mr. Beauchamp Tower, describing an invention for maintaining a steady platform at sea—not so easy of attainment as might be at first thought. One of the chief points Mr. B. Tower calls attention to is that the ship's compass does not retain its horizontal position despite wave motion, as is popularly supposed, but that a plumb line or pendulum departs from the perpendicular just as far as the surface of the wave leaves the horizontal level of the water when undisturbed. A handsome portrait of Mr. Irving M. Scott, general manager of the Union Iron Works, San Francisco, forms the frontispiece, and is accompanied by a brief but comprehensive sketch of that gentleman.

HARBOR IMPROVEMENT AT COLLINGWOOD.

Chief Engineer Coste, of the Department of Public Works, Ottawa, Ont., has issued notices asking for tenders on a scheme of harbor improvement at Collingwood, Ont., and it is expected that if the bids prove satisfactory, the contract will be let at once after the proposals are opened. The specifications, which are now in the hands of Harbor Master Lockerbie, of Collingwood, call for a channel beginning at the Collingwood dry-dock, to be 400 feet wide, and of a depth of three feet below the sill of the dry-dock, which is now 12 feet deep. This channel is to extend to the range light, and thence to the dummy lighthouse; here the channel is to be two feet deeper, or about 17 feet. If these depths are reached the inner harbor will have a depth of 16 feet, and the outer harbor a depth of 20 feet. This movement was hastened by a visit to Ottawa of a Collingwood delegation consisting of Mayor Callary, Reeve Nettleton, and Mr. F. Moberly, C. E., who waited upon the chief engineer on November 28.

TRANSATLANTIC steamship companies are forming a pool, with the object of advancing and maintaining steerage passenger rates.

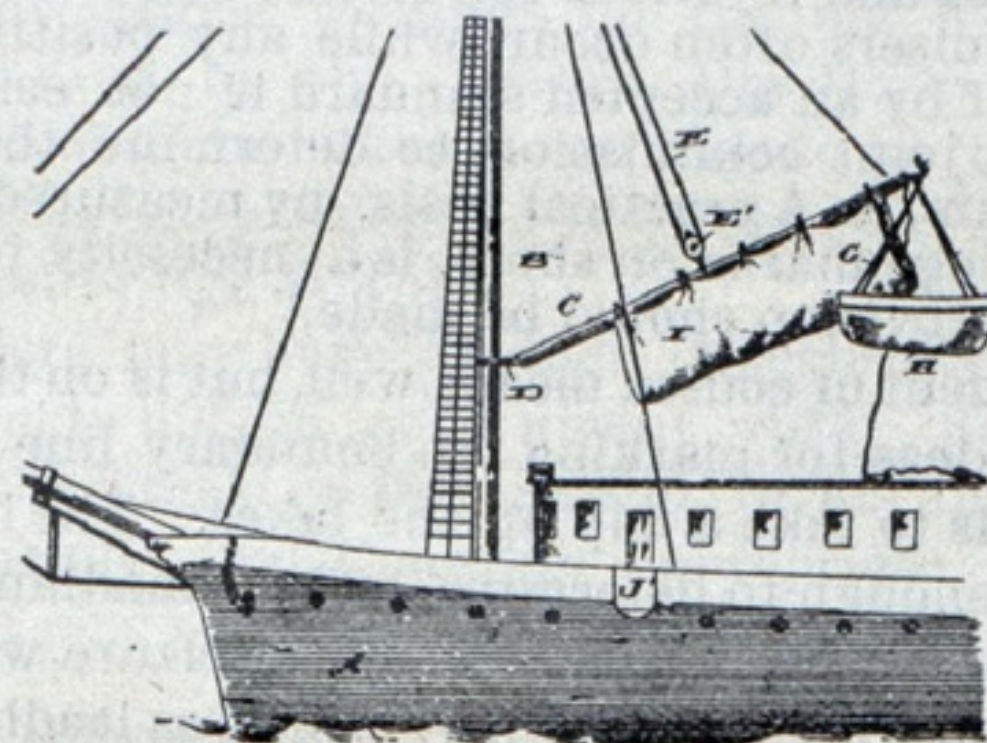
NEW INVENTIONS.

(ILLUSTRATED.)

Following is a list of patents that have been recently awarded on inventions bearing on navigation, marine trade and relative matters:

No. 550,343. Life-Saving Apparatus. Jacob Greener, Elmira, N. Y. Filed April 10, 1895.

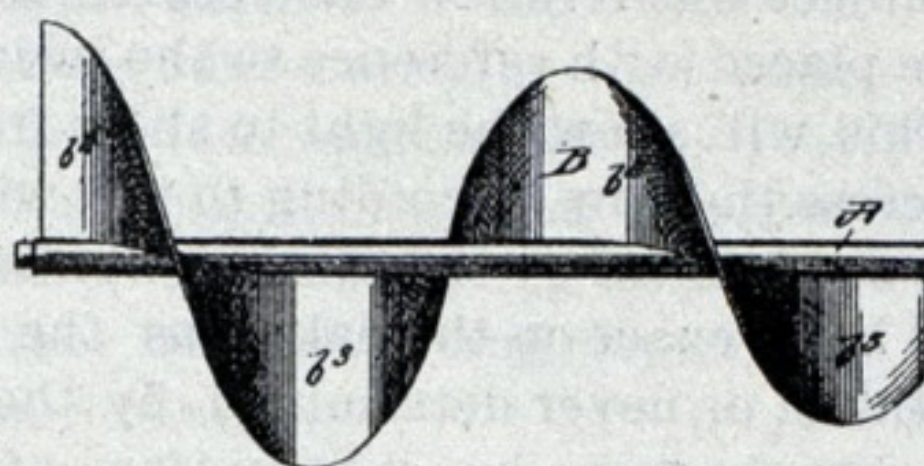
The device consists of a boom derrick mounted for pivotal and vertical movement, and provided with a sack and means at its outer end for suspending a life-



boat. The flexible sack is opened at the ends, and is designed to be used in getting from shipboard into the life-boat after the latter is launched.

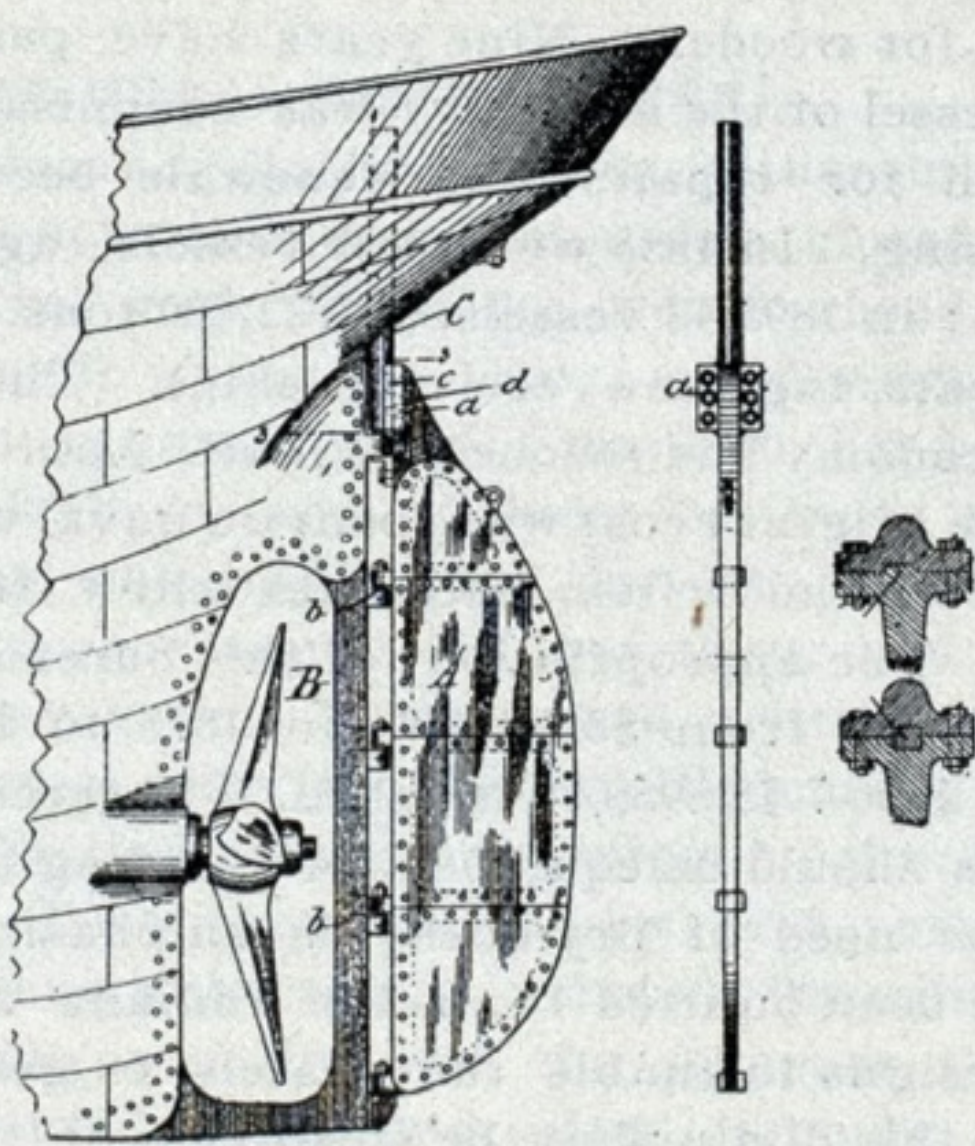
No. 550,552. Screw Propeller. Charles P. Budd, St. Louis, Mo. Filed July 18, 1895.

The screw propeller has a spiral tapering blade widening and having the same pitch from front to rear, and having the inner edge of its blade substantially equidistant throughout from a central longitudinal line, about which it makes two turns.



No. 550,522. Detachable Rudder. David McLachlan, Cardiff, England. Filed Sept. 10, 1894.

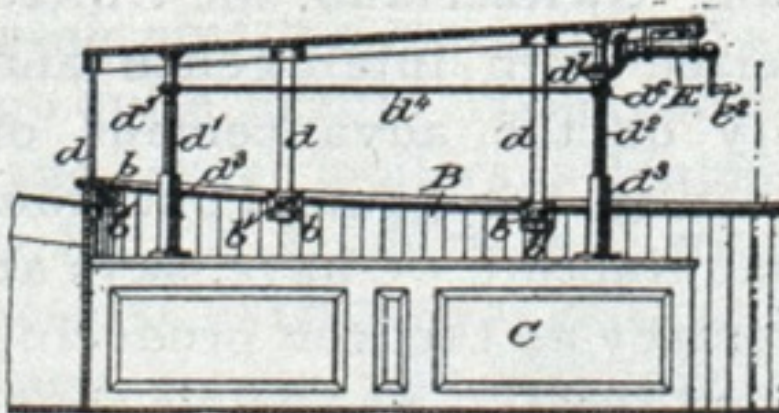
The claim for protection is upon the combination of the bottom of a rudder-head, two vertical lugs or flanges incorporated therewith and standing one on each side thereof, the top of the rudder, two vertical lugs or flanges incorporated therewith and standing



one on each side thereof, and bolts adapted to hold the two lugs or flanges on the top of the rudder to the two lugs or flanges on the bottom of the rudder head, and a central vertical device between the two pairs of lugs adapted to supplement the holding power of said lugs.

No. 550,418. Cabin for Boats. William P. Miller, Hempstead, N. Y. Filed April 5, 1895.

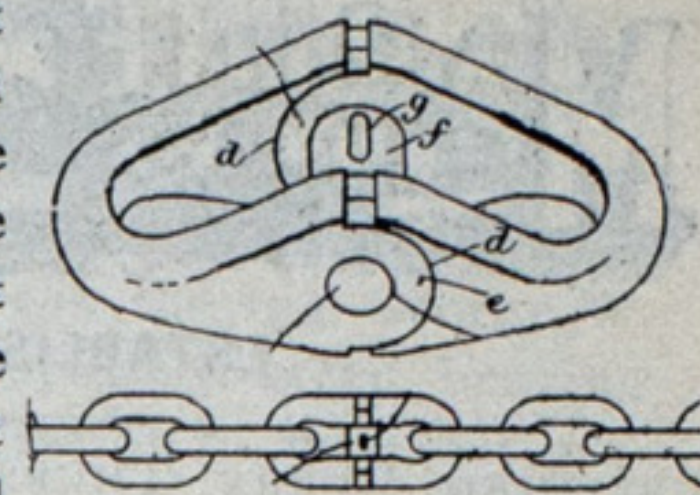
The claim is for the combination with a boat of a cabin roof and means for raising and lowering the roof comprising a screw-threaded standard secured to each corner of the cabin, and more if necessary, a screw at its upper end secured to the cabin roof, so as to turn freely therein, its



lower end being engaged with a screw-threaded standard, and an operating shaft mounted on the cabin roof and geared to one of the said screws for rotating it; a sprocket chain connecting the screws, whereby they are caused to operate simultaneously, and clasps engaging the said posts for rigidly securing the cabin roof in each of its vertical adjustments.

No. 550,417. Shackle for Vessels' Chains. James B. Miller, Rockland, Me. Filed February 20, 1895.

The shackle comprises in its construction two U-shaped clevises provided with eyes at their open ends, and with sockets or recesses to receive the rounded portions of the open ends, a pintle or pivot pin extending through the eyes of the rounded ends, a sleeve surrounding said pintle or pivot pin between the ends of the clevises, and a cotter or pin passing through said sleeve and pintle.



A full description of these patents can be obtained by writing to the Patent Office at Washington, enclosing 14 cents for each, and mentioning THE MARINE RECORD.

FLOTSAM AND JETSAM.

The ferry steamer Shenango No. 2 ran into and sunk a government scow in Conneaut harbor last Thursday.

Capt. Tuttle's wreckers could raise only 200 tons of the Centurion's jettisoned copper cargo before winter set in. They will resume work in the spring.

Major W. S. Stanton, corps of engineers, U. S. A., has been appointed as Gen. O. M. Poe's successor on the Ohio river and Lake Erie canal board.

The boats of the Wabash Toledo-Buffalo line are said to have more freight awaiting water shipment at their western terminus than they know how to handle.

Commissioner O'Hanley, appointed by the Canadian government to prepare a report on the effect of the Chicago canal upon lake levels, has nearly completed his work.

The steamyacht Maud Fish, owned by W. J. Fish, of Saginaw, and worth \$1,500, was burned at her home dock Wednesday night of last week. She was insured for \$600.

The local inspectors have found the master of the Clyde at fault in colliding with and sinking the schooner Arctic this summer on Saginaw Bay, and have revoked his license.

Wreckers who went to recover the coal cargo of the schooner Red, White & Blue, wrecked in Green Bay, could get only six tons. Private enterprise had been there before them.

The D. & C. boats will continue to run on the Detroit-Cleveland line as long as the weather permits. They will continue to carry local passengers, but will care chiefly for the freight trade.

Capt. Grasser, of the Cayuga, whose license was revoked by the local inspectors in connection with the Hurd collision, has appealed to Supervising Inspector Galwey, on the ground that he was not present when the witnesses were examined and asks for a re-hearing.

The Wisconsin & Michigan R. R. Co. have had such success with its car ferries that the latter have already delivered twenty carloads of steel rails at Peshtigo, Wis., which will be used in improving the terminal facilities there so as to allow of more expeditious loading and unloading cars to and from the boats.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD by George F. Stone, Secretary Chicago Board of Trade, November 30, 1895.

CITIES WHERE STORED.	WHEAT, Bushels.	CORN, Bushels.	OATS, Bushels.	RYE, Bushels.	BARLEY, Bushels.
Albany.....		20,000	135,000		6,000
Baltimore.....	455,000	1,156,000	260,000	100,000	
Boston.....	778,000	270,000	14,000		
Buffalo.....	2,812,000	333,000	53,000	409,000	2,064,000
" afloat.....					
Chicago.....	21,705,000	940,000	606,000	235,000	16,000
" afloat.....					
Cincinnati.....	44,000	4,000	84,000	39,000	98,000
Detroit.....	434,000	10,000	28,000	13,000	10,000
" afloat.....					
Duluth and Superior.....	5,249,000		352,000	158,000	227,000
" afloat.....					
Indianapolis.....	126,000	115,000			
Kansas City.....	1,335,000	7,000	36,000	28,300	
Milwaukee.....	742,000		5,000	165,000	77,000
" afloat.....					
Minneapolis.....	15,700,000	3,000	654,000	117,000	106,000
Montreal.....	246,000	13,000	35,000	3,000	18,000
New York.....	7,150,000	602,000	2,345,000	8,000	45,000
" afloat.....	624,000	166,000	54,000		222,000
Oswego.....	29,000	46,000			180,000
Peoria.....	94,000	37,000	344,000	4,000	
Philadelphia.....	210,000	249,000	175,000		
St. Louis.....	1,471,000	40,000	616,000	16,000	13,000
" afloat.....		16,000			
Toledo.....	1,120,000	140,000	234,000	128,000	
" afloat.....					
Toronto.....	75,000		34,000		49,000
On Canal.....	416,000	116,000	97,000		505,000
On Lakes.....	3,088,000	1,234,000	286,000		1,620,000
On Mississippi.....					
Grand Total.....	63,903,000	5,517,000	6,397,000	1,423,000	5,310,000
Corresponding date 1894.....	85,159,000	4,866,000	9,740,000	477,000	3,809,000



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CLEVELAND, O., DECEMBER 5, 1895.

SECRETARY LAMONT apparently disapproves of squandering much more money on the Mississippi. Over \$26,000,000 has been spent there, with very modest results to commerce. That sum expended on the lakes would repay the nation in ten years in the amount of money saved in freight.

A SPECIAL to the New York World from Ottawa credits some members of the Marine Association with giving the recent deepening of the Gallop channel as the reason for the lower levels of the lake. This is more nearly analogous to the fable of the fly on the bull's horn than anything we have yet heard of.

THE annual report of Commissioner Chamberlain, of the Bureau of Navigation, is refreshing in the hearty interest which it demonstrates is shown by the Commissioner in the merchant marine of the United States, and his earnest desire for its rehabilitation. That some of his ideas as to ways and means are beyond the range of comprehensibility does not merit for the Commissioner the roasting he has received at the hands of some of the sea-coast papers. He should be allowed just at this particular time to ventilate his free shipping ideas to their fullest extent, as there is no probability of the new Congress paying the slightest heed to his recommendations in this respect. The fact that he advocates the repeal of certain "reciprocal" measures which deprive the country annually of a large tonnage tax and on account of which American vessels receive no adequate benefit, shows that despite the faults of his early training, Mr. Chamberlain has a protectionist germ in him which might be developed by careful nursing. At the prices at which vessels are now built in this country there is every year less and less reason for sacrificing the shipbuilding interests of America to secure sale for a number of foreign-built hulks of questionable worth. The Commissioner recommends also the abolition of fees for entrance and clearance papers for vessels trading between the United States and Canada. It would seem more sensible to recommend the abolition of fees on coastwise clearances, this being of more direct benefit to American vessels, which are numerous enough to take care of the cross-the-lake trade without the assistance of the foreign tonnage. American vessels trading to Canadian ports are required to pay fees far in excess of what is charged Canadian vessels at American ports, and this being the case, it would seem to be the part of the Dominion government to inaugurate any reciprocity movement on these lines.

BOUNDARY LINE ALL RIGHT.

President Cleveland, in his message to Congress, makes the following suggestion:

"I call attention to the unsatisfactory delimitation of the respective jurisdictions of the United States and the Dominion of Canada in the Great Lakes at the approaches to the narrow waters that connect them. The waters in question are frequented by fishermen of both nationalities, and their nets are there used. Owing to the uncertainty and ignorance as to the true boundary, vexatious disputes and injurious seizures of boats and nets by Canadian cruisers often occur, while any positive settlement thereof by an accepted standard is not easily to be reached. A joint commission to determine the line in those quarters, on a practical basis, by measured courses following range marks on shore, is a necessity for which immediate provision should be made."

The President of course means well, but is on the wrong tack. His ideas for marking the boundary line indicate that he needs to take a trip up the lakes. The boundary line is easy enough to determine. The Canadian revenue cruiser knew her position every time a seizure was made. What is needed is some action by Congress leading to national control of the American lake fisheries, and an understanding with Canada which will lead to similar legislation on both sides of the lakes.

THE British Board of Trade has been discussing the screening of side-lights, and the committee to which the subject was referred has recommended that the screens be placed with reference to the inside edge of the wick. This will allow the light to show from $1\frac{1}{2}$ to $2\frac{1}{2}$ degrees across the bow, according to the width of the wick, and is condemned by the marine journals. It is not necessary to be so exact on the lakes, as the course of a vessel is seldom or never determined by the angle at which her lights are seen; but it is an item of some importance on salt water, where the rule has been heretofore to show the lights only one-half point across the bow.

BIG GOVERNMENT DRY-DOCKS NEEDED.

Chief Constructor Philip Hichborn, Chief of the Bureau of Construction and Repair, shows how the increase of naval vessels leads in increasing demands upon his bureau, especially because of the substitution of modern steel ships for wooden. Nine years have passed since the first vessel of the new navy was commissioned and the demand for repairs and renewals becomes daily more pressing. In 1885 we had 39 vessels, aggregating 72,900 tons; in 1895 43 vessels, of 122,800 tons, excluding torpedo boats, tugs and receiving ships. The policy of extreme economy has reached its limit. Less than 3 per cent. of the original cost was spent on naval vessels last year, whereas the British estimates allow from 4 to 9 per cent. The appropriation for this bureau has gradually decreased from \$3,300,000 in 1875, to \$900,000 in 1895. For 1896-7 \$5,895,679 is asked. The three principal navy yards should be equipped for building and repair work. The need of dry-docks is emphasized. Bilge keels have been omitted from the Indiana and in subsequent designs to enable the vessels to get into our docks, but this diminishes the steadiness of the vessels and the keels will probably have to be restored. Our steel vessels require frequent docking, but on account of docks being occupied for a long time by vessels under repair, it is sometimes impracticable to dock our cruising vessels as promptly as experience has shown to be advisable. If such a condition confronts the department in time of peace, it is easily realized how serious a defect it would prove in time of war.

DECLINE OF ENGLISH IRON INDUSTRY.

Germany, France, Belgium, Switzerland, the United States, all of them have seized with intelligence and marvelous executive ability on the advancement of science and are rapidly cutting the ground out from under the feet of every manufacture we have, says an English journal. Our supremacy as the iron producing nation is already gone beyond recall. Sheffield's shops are idle, and the cutlery of England is no longer recognized as the first and best the world can produce. Our textile industry is also suffering, as is every other industrial enterprise. England is living on her capital; no longer creating capital, from which to live on the interest. It is high time that we accept the situation, wake up to the fact that if we would maintain our position before the world we must adopt the newer methods that are fast making us but the residential suburb of nations which are rapidly acquiring greater commercial wealth.

IN THE ADMIRALTY COURTS.

John B. and H. Fairgrieve have filed their answer in the Federal Court at Duluth in the suit of the Marine Insurance Co. vs. the steamer Arabian. They deny that the Arabian, which collided with the Minnedosa, in the Welland canal, damaged the Minnedosa to the amount of \$15,000, or that the insurance company was liable for any such sum as \$8,651.20, as the damage really inflicted was but a small part of such a sum.

The owners of the Devereux sunk in the Sault by collision with the Nyanza, have libeled the latter for \$41,950.

The Empire Transportation Co. and the Mitchell Steamship Co. have appealed the demurrage suit vs. the Philadelphia & Reading Coal and Iron Co., which was decided against the libellants at Duluth recently. The substance of the decision appeared in the RECORD some weeks ago.

The schooner John Magee, whose owner is Capt. J. M. Jones, of Detroit, was libeled some time ago by the owners of the S. S. Curry on a salvage bill of \$2,000. Capt. Jones did not contest the case and allowed the schooner to be sold, bidding her in for \$450. The Curry's owners are said to have refused \$500, and will now get only about \$300 after the costs are paid.

Capt. G. H. Morden's suit against the owners of the Kittie Haight and Parks Foster will be heard in the Exchequer Court at Sandwich about January 1. The Kittie Haight, having in tow the schooners Itasca, Mary and Austin, on October 5 last met the Parks Foster at Southeast Bend. The latter gave signals which were not understood by the Haight, and the Parks Foster, a big American liner, collided with the Itasca and Mary, sinking them. Capt. Morden is owner of the Mary. The crew will also sue for loss of money, and personal effects. The damage claimed amounts to \$5,000.

MARQUETTE'S NEW RAILROAD.

Marquette will undoubtedly increase its ore shipments very largely next season, by reason of the fact that the new railway to transport ore from Ishpeming to Marquette will be built this winter. The contract for the construction of the road, 15 miles in length, with terminal tracks, freight and passenger depots, and ore dock, has been awarded to Winston Bros., of Minneapolis. It will be known as the Lake Superior & Ishpeming Railroad, and leaves the north line at the northeast corner of Section 24, crossing the logging branch and South Shore line; thence into Section 25 through the gorge into the southeast corner of Section 26, crossing the South Shore line in Section 34; thence to the south of Eagle Mills through the southwest corner of Section 34 Township 48, north of Range 26 west; thence to the northwest corner of Section 3, Township 47, north of Range 26 west; thence through Sections 4, 5 and 6 of the same township, passing to the south of Negaunee about three blocks from the South Shore depot; thence through Sections 5, 2, 10 and 11 in Township 47, north of Range 27 west, to a point in Ishpeming at the south end of Johnson Street. From this point one line diverges to the north, connecting with the Bar-num mine, and another circles the hill to the south and connects with all the mines in that locality.

QUERIES AND ANSWERS.

To the Editor of The Marine Record:

Does the sea always run in the same direction that the wind blows?

OBSERVER.

Detroit, Mich., November 30.

Your query evidently refers to rough water on the lakes, which have no perceptible regular tides. The motion of the water is as a rule, due to the winds; but the wave front is very seldom at an exact right angle to the wind except in very deep water. The variation of this angle is due to the irregularities of the bottom, and is more perceptible as the wave approaches the shore. The element of friction enters very considerably into all wave motion, to this fact being attributable the subduing effect of oil on the waves. As the mass of water moves toward a shore which is not at right angles to the direction of the wind, the end of the wave front which is shoreward loses its momentum and speed by reason of the rapidly shoaling water, and more foam is usually observable at this end. On rocky shores the wave line is utterly broken up, but where a smooth beach runs out into the water the wave line alters very perceptibly from a right angle to the direction of the wind.

AIDS TO NAVIGATION.

LIGHTS AND FOG SIGNAL ESTIMATES.

Estimates of appropriations for lights and fog signals on the Great Lakes for the coming fiscal year, as sent to Congress Monday: Point aux Barques, (Manistique), \$32,000; Menominee station, \$5,000; Cat Head Point, Grand Traverse Bay, \$5,500; Escanaba station, \$5,000; Michigan City, \$5,500; St. Joseph Pierhead, \$5,000; South Milwaukee, \$7,500; Scammon's Harbor, \$15,000; beacon light, Conneaut, \$2,500; Grassy Island, \$5,000; Grosse Ile (north channel, \$3,500; Grosse Ile, south channel, \$5,000; Portage Lake, \$10,000; Big Sable, \$5,000; St. Clair channel lights, \$2,000; reef light, Mackinac Straits, \$25,000; channel through lakes, \$500,000; Ashtabula Harbor, \$60,000; Black River, \$10,000; Toledo Harbor, \$150,000; Cleveland, \$100,000; Conneaut, \$40,000; Fairport, \$20,000; Huron, \$10,000; Sandusky, \$40,000; Port Clinton, \$6,000. River and harbor estimates have been cut down to \$12,350,000, about one-quarter the usual estimate. Many items were eliminated entirely.

GENERAL POE'S SUCCESSOR

On recommendation of Gen. Craighill, chief of engineers, the secretary of war has directed Maj. J. C. Post, corps of engineers, to take charge of all public works in the vicinity of Detroit, formerly in charge of Gen. O. M. Poe, deceased.

Maj. James C. Post was appointed to the West Point military academy from New York, and graduated in 1865. Upon his graduation he was commissioned second lieutenant in the engineer corps. Until quite recently he was in charge of the defensive works at Fort Stevens, Ore., and Fort Canby, Wash. He also had charge of a number of river and harbor improvements in the Oregon and Washington district.

NOTICE TO MARINERS.

SOUTH FOX ISLAND LIGHT STATION.

Notice is given by order of the Light-House Board that on or about December 10, 1895, there will be established at this station, on the southerly end of South Fox Island, northerly part of Lake Michigan, a 10-inch steam whistle to sound, during thick or foggy weather, blasts of 3 seconds, separated by silent intervals of 17 seconds' duration. The fog signal building is a brown corrugated iron structure, located 420 feet SW. $\frac{3}{4}$ W. from the light tower.

GRAND MARAIS HARBOR OF REFUGE

Notice is given by the Light-House Board that, on or about December 10, 1895, a fixed white light of the sixth order will be established in the tower recently erected on the outer end of the west pier, entrance to Grand Marais harbor of refuge, south shore of Lake Superior. The focal plane of the light will be 40 feet above mean lake level, and the light may be seen 13 miles in clear weather, the observer's eye 15 feet above the lake. The light will be shown from a black lantern surmounting a square, white, pyramidal, wooden skeleton tower, with the upper part enclosed. An elevated walk extends shoreward along the pier 810 feet.

The geographical position of the light as taken from Chart No. 31, of the U. S. Survey of the Northern and Northwestern Lakes, is approximately: Latitude, N. 46° 41' 01"; longitude, W. 85° 58' 40"; Big Sable light-house, W. $\frac{7}{16}$ S. (true), $7\frac{5}{8}$ statute miles.

During thick or foggy weather a bell, hung on one side of the tower, will be struck by machinery a single blow every 30 seconds.

NOTES FOR NAVIGATORS.

The schooner Mary (Br.), sunk off St. Clair by collision, is an obstruction to navigation and will probably be blown up.

The crib at Sandusky and work on the outer range light station will begin at once. Wm. Rabbitt, of Toledo, has the contract.

The lights at Skilligalee and Waugoshance, and the lightships, will stay out till December 10, and as much later as possible. South Manitou and Point Betsey lights will probably remain lighted all winter.

Night navigation over Ballard's Reef is at an end for this season. Capt. George B. McKay was notified Wednesday that running ice in Detroit River had carried away all the floating lights.

Captains of vessels who enter or leave Chicago inside the government breakwater are cautioned not to ap-

proach too near the north end of that breakwater, as in excavating for the new water works tunnel considerable clay has been dumped there, and has formed a bar across the entrance.

MORE NEW CONSTRUCTION

(CONTINUED FROM FIRST PAGE.)

on the large new Mutual boat, at the Globe yard, is also delayed on account of the non-arrival of her beams.

Some of the largest forgings for the big Wolverine steamer, building by the Detroit Dry-Dock Co., at Wyandotte, had to be taken from Toledo to the shipyard by boat, as they were too large to pass through the tunnel and bridge at Toledo.

Lake builders may have another opportunity, before many months, to bid on government work. Secretary Carlisle, of the Treasury Department, in his annual report recommends that Congress appropriate at least \$250,000 for a new revenue steamer for the port of New York.

Nau Bros., of Green Bay, who recently sold their tug C. M. Charnley to the Independent Tug Line, of Chicago, have decided upon the dimensions for the new tug which will be built for them, and have submitted the specifications to several Lake Michigan shipbuilding firms for bids. She will be 92 feet long over all (14 feet longer than the Charnley) by 20 feet beam and 11½ feet depth, with a high pressure 26x28-inch engine, and a 9x14-foot boiler, tested to 140 pounds working pressure, and furnishing power enough to operate an 8½ foot wheel. The contract for building her will be awarded very soon. She will be the most powerful tug on Green Bay, and will have large fuel bunkers, being especially designed for long-distance towing.

Lumber men in the Menominee River are undecided whether to build a new fire boat, having one up the river and one down, or to merely rebuild the old boat. This will be done anyway, at the cost of about \$3,000.

The Shenango No. 2 went into commission this week. From present appearances both boats will be kept pretty busy all winter on the Conneaut-Port Dover route. A passenger steamer will probably be put on the route next summer.

GENERAL REPAIR WORK.

Work at the local drydocks has been rather dull for a few weeks, but now that navigation has closed, both companies have work for some weeks ahead. The schooner Magnetic was in the Cleveland dry-dock last week for new stringers, a piece of plank in her bottom, a piece of plank sheer, and to have her butts calked. The Continental was in this week for 100 feet of new bottom planking, to renew half her stem, and a new forefoot and new wheel. She also had a little calking done. The Corona went into the dock Wednesday night. The schooner Nellie Reddington is lying in the slip beside the dock. She will receive a new deck, new deck beams, and a general overhauling during the winter.

At the Ship Owners' dry-dock the schooner Canton came out Wednesday evening, after stopping a few leaks. The John B. Ketcham, after completing repairs at the Cleveland shipyard, went into this dock for a new wheel. The tugs Joe Harris and William Kennedy had their stern bearings repaired and leaks stopped. The Maritana and Choctaw enter the respective basins today. The Choctaw has been out four seasons, and this is her first docking. She has no especially heavy damage now, but will repair a few bumps she has received from time to time. The steamer Wallula is lying outside the dock and will be repaired when there is no other rush work. It is said that a good deal of her bottom planking must be renewed and other repairs will make the job quite heavy. The report that she is to receive new and larger boilers is denied by her owners.

The John N. Glidden will winter at Ashtabula, and will receive extensive repairs at Devney's yard. These will include new deck and deck frames, some new planking and a general overhauling.

CHICAGO.—At the Chicago Ship Building Co.'s yard, the steamer John Oades was in dry-dock for a new shoe and rudder and repairs to her stern post, and the barge Iron Cliff for recalcing all over, considerable repairs, and two new masts. The steamer John Emory Owen will go into dock for repairs to damage caused by her going ashore last week.

At Miller Bros.' shipyard, the steamer A. A. Parker is in dock for part new decks and recalcing of bottom

and decks. The steamer J. D. Marshall was in and received a new shaft and wheel; the steamer M. C. Neff was in for repairs to her shoe and stern bearings. The schooner A. Mosher is in for a new stem and other repairs to damage caused by collision with the steamer Rochester last month. Last week the tug George W. Gardner was in dock for some repairs to stern bearing and some calking; the steamer Clarion to have her propeller wheel re-fastened.

The Goodrich Co.'s steamer Indiana, Capt. Gallagher, was in the Milwaukee Dry-Dock Co.'s dock on Friday and Saturday last, and received additional ironing, repairs to stern bearing, seacocks and general overhauling to fit her for her winter's work. WILLIAMS.

DETROIT.—The Northern Wave, after being on the rocks at Sand Beach six days, came to Detroit and discharged the balance of her cargo, most of it having already been lightered and sent forward on the North Star. She went into the Detroit Dry-Dock Co.'s Orleans street dock last Thursday. The cost of her repairs will run up to between \$50,000 and \$75,000, besides a large wrecking bill, and a heavy loss on cargo, making a total of over \$100,000. Fully three-fourths of all the plates below the bilges must be removed. Some of the plates are only buckled, and can be replaced after re-rolling; but the greater number are cracked or sheared, and new ones must be substituted. Many of the frames and angles are broken, and in two or three cases, it was necessary to remove the entire floor. The inner bottom is not much damaged, but some repairs will be necessary. On the starboard side the sheer strakes and doubling plate were each cracked in two places, and the deck stringers on both sides of the spar deck are buckled, owing to the great force with which the steamer was thrown upon the rocks. She was out until she drew only 7½ feet forward and 10 feet aft, and sat so solidly that she could not pound, or the damage might have been much heavier.

The steamer Wisconsin went into the Detroit Dry-Dock last Wednesday for repairs to her stern bearings. She was then taken into the slip near by, and will be given new boilers and an electric lighting plant this winter. She will also receive a general overhauling. The Indiana and Volunteer have also been in dock for minor repairs.

Wrecker McMorran, of Port Huron, has got afloat the Britannic, which was sunk by the Russia last August. She will follow the Fryer at Clark's dry-dock. Her after cabin was carried away, and her stern is a complete wreck. It was necessary to build a temporary stern in order to raise her. One pump keeps her free. Mr. McMorran was to get \$12,500 for the wreck, but will probably be given the money.

By placing chains under her the schooner C. N. Johnson has been raised and taken to Amherstburg, where she discharged her coal. She will probably come here for repairs, which will be extensive if she is put in proper shape again.

BUFFALO.—Two river collisions resulted in small damages to the Livingston and Plankinton last week. The former was struck in the stern by the Schlesinger, getting her rail broken and her cabin displaced. The Pathfinder hit the Plankinton, breaking half a dozen planks. Neither was detained for repairs. The tug Elk, which was sunk by the steamer Syracuse, is in O'Neil's dry-dock. She was cut almost in two. Her keel is broken and her shaft is twisted two feet. Repairs will cost more than the tug is worth, and her owners have not decided what to do with her. The tug Acme got a new shoe at Mills' dock. The C. F. Bielman was also docked for some new planking.

COLLINGWOOD, ONT.—The City of Owen Sound spent last week in dry-dock, as a result of striking Robertson Rocks near Clapperton Island. She received new pieces of stem and keel, a new forefoot, and considerable bottom planking. Her deck was badly sprung, and had to be relaid. The schooner Dominion went on the rocks at Parry Sound, and was placed in dry-dock, after discharging her lumber, for some new cotton planking and calking.

The steamer W. B. Hall, now in dry-dock at Owen Sound, will be lengthened 40 feet and will receive a new engine and boilers.

The Levi Lawson, waterlogged, has gone to Bay City for repairs.

The schooner Dauntless is in the Wolverine dock, Port Huron, for large repairs.

MARINE RECORD Life Savers' Series.

CAPT. BENJAMIN G. CAMERON.

(ILLUSTRATED.)

Few of the keepers in charge of the life-saving stations on the lakes have had a more varied career than Capt. Benjamin G. Cameron, of the Kenosha life-saving station. Capt. Cameron, as will be seen by his picture, looks every inch a Scotchman, and his bearing and figure prepare one to expect a story of unusual interest when reading his biographical sketch.

Capt. Cameron was born on the border between New Brunswick and Maine, near Holton, in 1839. His parents removed to Chicago when he was only three years old, and here he was reared, beginning his education at the old Kinzie public school, at that time the only school in Chicago. His life-saving exploits began at a rather early age. When he was ten years old he lived at the old ferry where the Rush street bridge now stands, and learning to swim, soon became an expert. He owned a little scow, and with its assistance he picked many a man out of the river. Once, when the old ferryboat Berry capsized, when heavily laden with passengers, young Cameron was one of the first to the rescue, and it was due to his timely and expert assistance that only a few people out of the large number on board were drowned.

He was only 13 years old when he began sailing, and he had a number of exciting experiences, being shipwrecked five or six times, narrowly escaping with his life each time, without assistance, this being before the days of life-saving crews. He continued to pull people out of the water, happening along at just the right time, as a life-saver should. In 1856, he rescued a man who had fallen out of a boat at Milwaukee, and in 1860, pulled out of Chicago River a man who had fallen from Randolph street bridge. In May, 1864, he rescued a man who had fallen overboard from the schooner Dick Summers at the foot of Lake Michigan. In December of the same year, he was at Kenosha, and put out as captain of a volunteer crew in an old Frances metallic life-boat, two miles south of that port, taking off four men from the schooner William H. Hinsdale, which was ashore and breaking up. The rescue was worthy of particular mention, because the crew had unusually difficult work to get to the wreck, owing to the large floes and bergs of ice along the shore, from one of which they had to launch their boat. The men were found lashed in the rigging, covered with ice, with scarcely any life left in them.

In 1865, he was one of the crew which rescued seven men from the schooner Revolving Light, which was wrecked three miles north of Grand Haven, and in 1867 and 1868 he helped to take off two crews of vessels which went on the beach at Muskegon. In 1878, he was of great assistance in the rescue of 65 people from the steamer Amazon, which was wrecked at Grand Haven.

Capt. Cameron received his commission as keeper of the Kenosha station October 25, 1879. During these 15 seasons he has been the means of saving hundreds of lives and thousands of dollars' worth of property, as is shown by the log of his station. The Kenosha crew have always had plenty of work to do. On November 20, 1880, seven men were taken off the schooner E. P. Royce, waterlogged eight miles from Kenosha. In November, 1883, they took six men from the schooner Rockaway, off the same port. November 24, 1887, they rescued 12 men from the steamer Solon H. Johnson, wrecked ten miles south of Kenosha. In 1888, three men were saved from a wrecked yacht three miles from port. April 15, 1889, they took 15 men off the schooner Hattie Earl, wrecked south of Kenosha. December 2, 1890, ten men were saved from the steamer A. C. Van Raalte, which came to grief south of Kenosha. These are only a few of his important rescues. He has done some excellent work during the present summer, which has been noted concurrently by the daily press.

SECRETARY LAMONT'S ANNUAL.

In his annual report, Secretary Lamont, of the War Department, submits the engineers' estimates for needed river and harbor improvements, with the information that the total amount asked for is \$48,836,027, but that he thinks a lesser sum will do. As the contracts for improving the Mississippi River expire this year, an inquiry into the practical results is suggested. There has been expended there \$26,212,481.59, about one-third of it to deepen the channel 18 inches. The navi-

gation interests of the river have thus far received little benefit. As there is an available balance of \$2,617,185.08, the estimates of the commission are forwarded without recommendation. Attention is called to the possibility of nullifying the results of large expenditures in the improvement of lake channels and harbors by permitting the construction of such works as the Chicago Drainage Canal.

OWNER OF THE PRIZE WINNER.

Among the very welcome callers at THE RECORD office, last week, was Mr. Thomas McBride, of McBride Bros., Philadelphia, owners of the steamyacht Yankee Doodle, which is said to be the fastest craft of any class in the world. The old Yankee Doodle, which had a record of about 20 miles per hour, was purchased by McBride Bros. with a view to getting greater speed out of her. They soon found the hull unsuited to their purpose, and disposing of it, they built the hull now known as Yankee Doodle. Into this they put a triple-expansion engine, a water-tube boiler, and a propeller wheel, all of their own design. The lines of the hull are new in some respects as well. It is as nearly as possible a double-ended wedge, but near the stern the hull widens out toward the bottom, which is formed something like the North West and North Land at the stern, where the hull passes completely around the two shafts. In the Yankee Doodle, however, the rounding

**CAPT. BENJAMIN G. CAMERON.**

out is much larger in proportion to the size of the hull. The effect of this is to prevent the squatting which usually occurs at high speed. The stern not being allowed to drop, the bow does not rise up, and the stem, or cutwater, is left where it will perform its proper functions. The new Yankee Doodle has a record of 30 knots per hour. Mr. McBride is the inventor of several other valuable devices, among them what is known as the "clam-shell" scoop, so popular for handling hard coal at the upper lake ports. Mr. McBride's errand to the lakes was connected with the manufacture of these scoops.

COMMERCIAL and maritime bodies on the seaboard, which are interested in the coasting trade, are uniting in a petition to Congress to establish a harbor of refuge at Cape Lookout, or at some point south of or near Cape Hatteras.

THE Bethlehem Iron Works have received an order from the Russian government for nearly 1,200 tons of armor plate for the new Russian battleship Rotislav. This company bid against 13 competitors, and was awarded the contract largely upon the showing of superior work. The contract represents nearly \$600,000, and will keep about 2,000 men busy until next fall, when the armor is to be delivered.

THE LOSS OF THE NINA.

Capt. Adolph Frietsch, who sailed from Milwaukee for England and Norway in his small sloop Nina during the summer of 1894, and who made the trip successfully, lost his little vessel on November 6. His family have received the following letter from him, relating the details of his misfortune. He wrote from Androscadie Farm, Butte Island, near the Firth of Clyde:

"My boat is now knocked to pieces, against the rocks of this island, which is a little way from Glasgow. I will soon come back to America, and see if they will give me another boat there, or else I must go to work and build one again. It was dark when my boat got against the rocks, and blowing a big gale, and raining and nasty; but I got away without getting hurt, and I also saved my clothes and a few more things. I am now waiting for a steamboat to come and take me to Glasgow, when I will come home to America."

Further details of the shipwreck are published in the Rothesay and Glasgow papers. The shipwreck occurred on the morning of November 6, during a severe southwest gale, on the west side of Butte, below Upper Androscadie farm. Capt. Frietsch had left Belfast on the previous Saturday forenoon, with the intention of going to Glasgow to attend the Trades Exhibition, open at that city. On Sunday he got becalmed between Butte and Arran, and as he could not make the Clyde he put into Loch Ranza and remained there to await a favorable opportunity of continuing his voyage. On Tuesday night the gale arose, and the Nina dragged her anchor. Not having a windlass, Capt. Frietsch was unable to get the anchor on board, but he let out all his spare cable in the hope that it might take hold.

He worked hard all night, trying to keep out to sea, but the Nina finally went on the rocks. He succeeded in getting safely ashore, and standing by, he took every opportunity of returning on board and securing his clothes, compass and other nautical instruments, and some pictures.

On his way to Glasgow Capt. Frietsch delivered a lecture at Rothesay, on November 8th, when he told the story of his adventures. The lecture concluded with a description of his wreck at Butte, after which he sang, by request, a Scandinavian sea song. A liberal collection was raised, and it was decided to send the Nina to Glasgow on a lighter at the first opportunity.

Capt. Frietsch announces his intention of building a forty-ton vessel for a voyage around the world. He believes that a boat of that sort will handle more easily than the Nina, which was only thirteen tons burden.

150,000 H. P. ON THE GREAT LAKES.

Dean Bros., of Indianapolis, have every reason to congratulate themselves on the preference shown by so many ship and engine builders on the lakes for the independent air pumps and condensers furnished by their steam pump works. They have just issued some neat advertising matter, containing testimonials from such men as Henry Penton, mechanical engineer for the Frontier Iron Works, Detroit; Frank E. Kirby, of the Dry-Dock Engine Works, Detroit; A. George Matteson, of Samuel F. Hodge & Co., Detroit; Sven Anderson, of F. W. Wheeler & Co., West Bay City; James Davidson, of West Bay City; W. L. E. McMahon, chief engineer of the American Steel Barge Co., West Superior, and William Meade, chief engineer of the steamer Uganda. Dean Bros. have furnished independent air pumps and condensers, aggregating 150,000 horse-power, during the last four years to some of the largest and fastest steamers on the lakes, of which the following is a partial list: Adelia Shores, Ann Arbor No. 1, Ann Arbor No. 2, Adele, Azalea, Alpha, Bonita, C. L. Boynton, S. S. Curry, Centurion, City of Glasgow, Contaluta, Cynthia, Dawn, Deer, L. R. Doty, Elmer, Elk, Fashion, Garland, W. H. Gratwick No. 2, Fannie C. Hart, C. D. Haywood, Idler, Ida Torrent, I. C. U., V. H. Ketchum, Katahdin, Lightship No. 58, Linden, Lucille, Samuel Mather, Madagascar, Merida, Simon J. Murphy, Mary E. McLachlan, Ed. McWilliams, Nicaragua, Pilgrim, Protector, Penelope, Pleasure, Pastime, Pewaukee. Penobscot, D. F. Rose, Regiland, Sprite, Seattle, Shenandoah, Shenango No. 1, Shenango No. 2, George Stone, I. Watson Stephenson, Silver Spray, Thomas H. Smith, Tempest No. 2, John V. Trevor, Truant, Tyrone, Uganda, Unique, Visitor, Wyandotte, Waubun, Wapiti, Yukon, Zenith City, Zurean, and Nos. 112, 113, 114, and 115, now building at F. W. Wheeler & Co.'s shipyard, West Bay City.

OLDEN TIME INTERNAL TRANSPORTATION.

(ILLUSTRATED.)

At this time, when internal transportation and the building of proposed canals are being so generally discussed, the illustrations given herewith, of the craft which floated on the Pennsylvania Canal 50 years ago, are of special interest, says the American Manufacturer. Along in the '40's, before the construction of the Pennsylvania Railroad, the Pennsylvania Canal, built and sustained by the state, was the only line of transportation between the east and the headwaters of the Ohio. It ran from Pittsburgh to Philadelphia and was considered one of the great engineering feats of the period, as it traversed a territory that seemed to offer every obstacle to the construction of such a work. From the foot of the mountain on the eastern side, the canal was comparatively easy, as it led through a country much similar to those in Europe in which canals had been constructed long before; but on the western side of the Alleghenies, leading down the great gorges through which flows the Conemaugh River, the engineers had everything to contend with. In getting over the mountains a system of inclined planes was employed, and the canal was thus divided into two parts, known among the boatmen as the "eastern" and the "western" side. The passenger boats on both sides of course ran only to the foot of the mountains. The traveler in coming from the eastern seaboard to the Ohio valley would leave the canal boat at Hollidaysburg and take a primitive car on what was known as the portage road. This carried him over the mountains and he descended to Johnstown, where he again took boat on the western side.

As this necessitated a transfer and re-handling of all freight at each side of the mountains, transportation rates were high. The first improvement made was when the "section" boats were introduced, and the passage of one of these from Pittsburgh to Philadelphia showed the best means of moving freight at that day. These boats, as shown in our illustration, were constructed in three sections, the bow, the middle and the stern sections. These were closely clamped together when afloat, as shown in Fig. 1. On reaching the foot of the Allegheny mountains these sections were separated and each one run upon a car. They were then drawn up an inclined plane to the first level, if going east, and formed a train on the railroad as shown in Fig. 2. They were drawn by a locomotive to the foot of the next plane where the hauling up process was repeated. In this way they crossed the mountains, were dropped down on the other side, and when the canal was reached they were again slipped into the water.

This was the mode of transportation on one of the most important lines in the United States 50 years ago. In this manner all the commerce between the Atlantic seaboard and the Ohio Valley was carried. It was a great improvement over the pack-horse and the Connetoga wagons which years before had wearily toiled over the Alleghenies; but it soon disappeared when engineering skill enabled the locomotive to climb the mountains.

TRADE NOTES.

The Independent Tug Line, of Chicago, since its acquisition of the tug W. H. Wolf to its already powerful fleet, claim to possess facilities for towing service second to no lines on the lakes. Not long ago the tug

C. M. Charnley was added to this line, she being one of the most powerful all-round tugs on Lake Michigan, fully equipped with steam steering gear and other modern appliances. The latest demonstration of her power was at the wreck of the J. Emory Owen, where the Charnley and Welcome both performed some highly satisfactory work. Among other tugs of the line are the William Dickinson, D. P. Hall, Ira O. Smith, Commodore, Jack Barry, and Peter Dalton. They have a supply of hawsers and steam pumps for wrecking purposes. Their office is at 244-46 South Water street, Chicago.

The Almy Water Tube Boiler Co., of Providence, has just completed a new plant, which largely increases their facilities. They shipped two of their marine boilers to Leith, Scotland, October 26, by the Furnessia, of the Anchor Line. They also shipped a boiler to Philadelphia, October 25, for the steamyacht Gretchen. They are building two boilers for E. S. Renwick, of New York, to be installed in his new steamyacht now building at Port Jefferson, L. I. They have several other large orders on hand.

The Champion Iron Co. is now putting up a new permanent ore crushing plant near the Champion mine, which consists of three crushers, set side by side, directly over the railroad track. They have purchased a new crusher for this plant, which possesses many new

SIX NEW STEAMSHIPS ORDERED.

The Hamburg-American Line, which for some months past has been figuring on additional tonnage for their transatlantic service, has contracted with British shipbuilders for six new steamers of 7,000 tons deadweight capacity each. The contract represents an outlay of about \$1,800,000. These six new steamers, which are intended for service between Hamburg and Boston, Philadelphia and Baltimore, together with the new 20,000 ton steamer Pennsylvania, now under construction at the shipbuilding yards of Harland & Wolff, Belfast, for the service between New York and Hamburg, will greatly increase the efficiency of the company in the transatlantic trade, says the American Shipbuilder. The Parmer Shipbuilding and Iron Co., on the Tyne, will supply three of these vessels at £60,000 each. The others were contracted for with other British builders. It is understood that all of these boats have not to be built, but some of them were purchased on the stocks, and that those already under way will be launched before the end of the year. When the new steamer Pennsylvania takes her place on the New York route the Dania will be withdrawn. The New York service will then be complete, with six boats in commission, allowing one sailing each week. The principal dimensions of the steamer Pennsylvania are: length at water line, 560 feet; beam, 62 feet; and depth of hold, 42 feet. She

is to have accommodations for 200 cabin and 1,500 steerage passengers. The Pennsylvania, when launched, will be, without doubt, the largest steamer afloat. Her deadweight carrying capacity will be 13,000 tons, and her displacement, 20,000 tons, or 15 per cent more than the Campania. The Hamburg-American Co., along with almost all of the transatlantic lines, have found that the larger and modern vessels can be run at less expense than the older types of steamers, and have disposed of a number of the latter. The Rhaetia and Rugia, which for some time past have been laid up, have been taken by Harland & Wolff in part

payment for the steamer Pennsylvania, which they have been building. However, they have since disposed of these two vessels. The Rhaetia was purchased by the Dominion Steamship Co., and the Rugia by the Fabre line, of Marseilles. The steamers Borussia and Bavaria have recently been sold by the Hamburg-American line to a party in Stettin. A number of Hamburg-American steamers in the West India service have been accepted as part payment for the six new ships contracted for. It is understood that the Danla, when withdrawn from the New York service, will be offered for sale, although she may be engaged in another service of the line.

A FRENCH armor plate and a Carnegie plate, made by the patent process of nickel steel, reformed and Harveyized, were recently under trial at St. Petersburg. Both plates proved to be of the highest strength. Of the two, however, the American was the most resisting, the French plate being finally smashed into four pieces, while the Carnegie plate broke into only three.

HYDROGRAPHIC CHARTS

Of Lakes Erie, Ontario, Superior, Michigan, Huron, and St. Mary's, St. Clair and Detroit Rivers, for sale at the office of the MARINE RECORD, No. 144 Superior street, Cleveland. Prices 75 and 50 cents each.

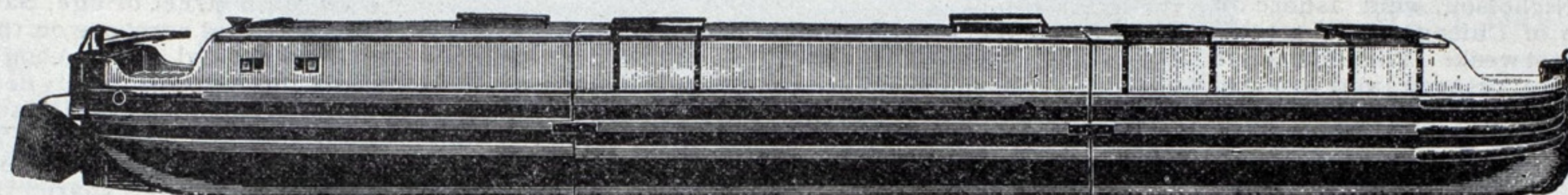


FIG. 1.—SECTIONAL FREIGHT BOAT, 1843; PORTAGE RAILROAD.

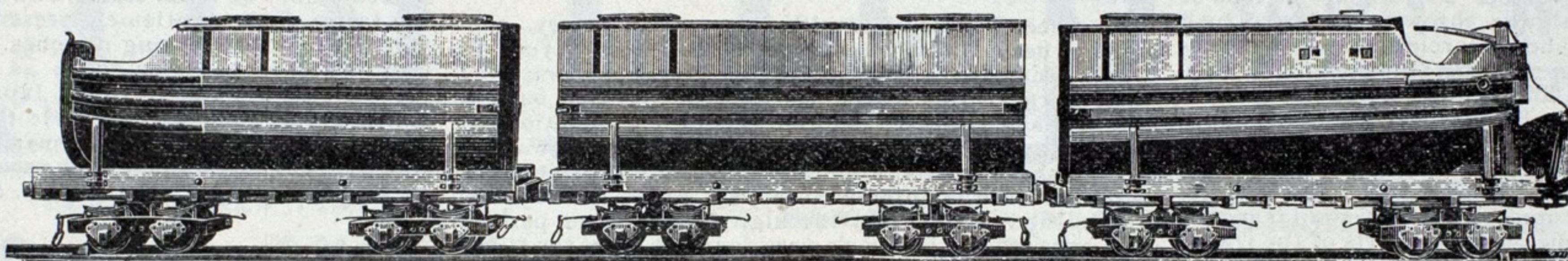


FIG. 2.—SECTIONAL FREIGHT BOAT AND CARS, 1843; PORTAGE RAILROAD.

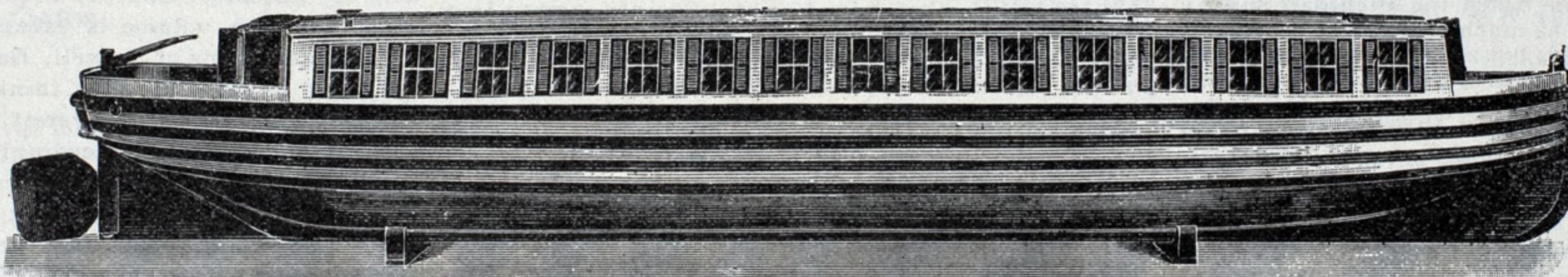


FIG. 3.—PASSENGER CANAL BOAT; PENNSYLVANIA CANAL.

and improved features. The plant is located 300 feet from the boilers, which furnish steam for the whole mining plant, and the crushers are driven by a pair of Corliss engines. The crushers were made by S. E. Cleaves & Son, of Hancock, Mich., and the Lake Shore Iron Works, Marquette, Mich., with the exception of the steel pitman, which was made by the Detroit Steel and Spring Co., Detroit. The steel eccentric shafts were furnished by the Cleveland City Forge and Iron Co. The new crusher weighs 55 tons; the opening is 24x24 inches, the sectional area of each side being 660 inches.

The Niles, O., Mine and Machine Supply Co., has recently been formed with a capital stock of \$30,000. Frank, Henry and George Robbins, W. M. Rosensteel and others are in the company. Work is being pushed on a new building which they will occupy.

The Morris Machine Works, at Baldwinville, N. Y., have acquired an unusually excellent reputation for their single and compound marine engines of from 5 to 200 h. p., which are high class in workmanship and material, but very moderate in price. Their centrifugal pumps for raising sand, gravel, coal, etc., and for dredging, wrecking and circulating, command great attention in the market. Hungerford Bros. & Co., of 39-41 Cortlandt street, New York, are their sales agents in the East, and Henion & Hubbell, of 61-69 North Jefferson street, Chicago, represent them in the West.

NEWS AROUND THE LAKES.

CHICAGO.

Special Correspondence to The Marine Record.

Capt. John Prindiville remarked of grain freights, which ought to be on the advance this time of year, that they had received "an Irishman's hoist" last week.

The steamer J. D. Marshall arrived here Friday, the 20th, from Naubinway, with lumber. She reached port at 2 o'clock p. m. When off Milwaukee her crank-pin worked loose, which partly disabled her machinery. Captain Pereue then hoisted the foresail and mainsail, and came on to Chicago with the machinery turning slowly. The steamer was four hours going up the river to B slip, Mud Lake, where she got on the bottom. In an attempt to get her off by working her machinery stronger the shaft broke off close to the wheel, and the latter dropped to the bottom. It was raised the following Monday by the Independent Tug Line, with the assistance of their diver.

The large four-master J. H. Rutter caught fire Wednesday night, the 27th, in some unknown manner, while lying at O. S. Richardson & Co.'s coal dock, near Erie street. The fire department extinguished the flames. A portion of the main and upper deck around the mainmast, and some hatch coamings and hatches were destroyed by the fire, and the mainmast was so badly burned that it had to be replaced with a new one.

J. D. Higgle has been appointed a receiver for the defunct Vessel Owners' Towing Co.

The steamer John Emory Owen, Capt. Marion Tinney, and consorts Michigan and Nicholson, went ashore off Glencoe, about 17 miles north of Chicago, in a terrific snow storm Monday night of last week. The officers and crews of all three vessels were rescued and brought safely ashore Monday morning by the Evanston Life-Saving captain and crew, who did noble work, having made six trips to the stranded vessels, saving every one on board.

The Owen was released by the Independent Line tugs C. M. Charnley and Welcome, and towed into this port Thursday night, November 23. About 150 tons of the Owen's cargo of coal was thrown overboard by a gang of 50 men before she was released, and a steam-pump was put on board by the tug Charnley, which assisted in keeping her afloat whilst being towed into port. The Owen is at Peabody's coal dock unloading, and will be towed to South Chicago this week by two of the Independent Line Tugs, to the Chicago Ship Building Co.'s dry-dock. She is leaking badly and her rudder is gone. It is conjectured here that if similar means had been used at that time on the consorts of the Owen, if not both of them, the Michigan at least, would have been released and be now safe in port.

The wrecking steamer Favorite arrived Saturday night to release the barges Michigan and Nicholson. A steam pump was placed on board the Michigan Sunday to pump out her cargo or as much of it as was necessary, and work was commenced; but a heavy northerly gale sprung up Sunday night and drove the wreckers to this port for shelter. They are now waiting for better weather before proceeding with their work. The recent heavy gales and sea must have rendered their chances of success considerably less, as the barges have had to stand the brunt of it; and they must also be badly iced up.

Capt. J. S. Dunham doesn't think much of Chicago's prospects for marine commercial growth. One of the local papers recently contained a column interview with the captain, in which he points out the steady decadence of the lake trade during the past years. He says some of the trade is drifting to South Chicago, but more to other parts. He says that the Chicago River offers no remedy and that the only way for the city to save her lake commerce is by pushing South Chicago and the Calumet river to the front. He attributes this change largely to the delays in getting up and down the river, and the poor appliances for handling cargoes. He concludes:

"Chicago can save some of its commerce by going to South Chicago. Next year there will be five grain elevators there, coal docks, etc. Business is being diverted there from the Chicago River very largely now. There is a better harbor, less expense and greater dispatch. The far-seeing business men of Chicago admit that marine interests have built up the city, but they have made their brags that we had it and would keep it, because Chicago was such a great city. They will learn their mistake when it is too late. When business is once diverted from a port it seems impossible to get it back. London once thought as Chicago does. It lost its commerce and spent \$50,000,000 in building docks, etc., to bring it back, but failed.

"Chicago will always have some trade on the river as long as there is a river, but the time will come when the traffic will be local, I'm afraid. In time there will be a harbor, say at Waukegan, and that port and South Chicago will do most of the marine business.

"No, an outer harbor is not practicable. A single cargo of 3,000 tons of coal would require 1,500 teams and wagons to convey it away. The result would be to make a terrible jam right in the business district."

The Custom House office at Rush street bridge will be kept open until midnight as long as is considered necessary this season.

The steamer I. Watson Stephenson, Capt. John

Nicholson, and consorts Alert and Advance left here early Tuesday morning for Marinette, where they will go into winter quarters. The Stephenson was built by F. W. Wheeler & Co., West Bay City. She arrived here on her first trip May 30 last, with her consorts Peshtigo and Advance with lumber from Marinette. The Stephenson and two consorts have made 26 round trips this season and brought along many million feet of lumber without an accident of any kind. The Stephenson's first season must therefore be considered a most successful one. She is a well-built, well-fitted and well-furnished boat, and well adapted for the business she has been placed in by her owners, the Stephenson Transportation Co.

The Goodrich Co.'s steamer Menominee, Capt. H. E. Stines, left here Saturday night for Manitowoc on her last trip this season. She will be re-modeled and rebuilt at Burger & Burger's shipyard before going into commission next season. The Indiana, City of Racine and City of Ludington will do the winter service for the company and will run along the west shore from Chicago, daily to Milwaukee, four times a week to Sheboygan, Manitowoc, and Two Rivers; twice a week to Kewaunee and Ahnapee, and to Sturgeon Bay once a week on Friday.

The L. M. & L. S. Transportation Co.'s steamers Jay Gould, City of Traverse and Peerless arrived here from Lake Superior on Saturday morning. They will all go into winter quarters here on their arrival from Benton Harbor.

Capt. John Dennett, of the U. S. Revenue Cutter Calumet, has been doing excellent service to marine interests by watching very closely for offenders who formerly dumped the contents of mud scows too near the breakwaters and city.

Although the season is far advanced, there continues to be quite a number of vessels entering and clearing from this port. Many have already gone into winter quarters and a large number are getting their canvas and gear dried and fit to be placed in the shipch ndlers' sail lofts.

WILLIAMS.

SAULT STE. MARIE.

Special Correspondence to The Marine Record.

Engineer Thomas Russell's lake survey party, consisting, besides that gentleman, of C. Morton Ayers, F. D. Stevens, Henry A. Rees and James Mahon, completed their work for this season last week. They had been in the field since May 6 last, and occupied the stations at Crisp, Haviland, East Base, Middle Base, Batchewanna, Whitefish Point, and Robbins. In the early part of the season work was interfered with a great deal by fog, and in the latter part by the high winds. The periods best adapted for the work were found to be at the times of the changes of the wind from northwest to southeast and the reverse. From station Crisp, sixteen miles west of Whitefish Point, successful sightings were obtained to Gargantua Point, Ont., 62 miles distant across the lake; to Caribou Island light, 30 miles, and to Iroquois Point light, 40 miles. While at Batchewanna Mr. Russell visited the scene of the earthquake, mentioned in THE RECORD last spring. The shock occurred April 17 last, and has been thought by many to have been a mere landslide, as in the disturbed area, ten acres in extent, large masses of clay appeared on the surface, which is as slippery as oil when wet. The water scrubbed cedars on the shore, however, show marks ten feet above the water level, and it is thought that Lake Superior cannot have been lowered so much as that.

Robert Luckes' tug Gazelle, which was sunk by collision with the Northern King at the Neebish cut, is at Pullar's shipyard. She is damaged at least \$2,500, besides the inconvenience and loss of time. Nothing will be done with her until some sort of settlement is effected.

Mr. L. P. Morrison, who has been connected with the branch of government work here which is under the direction of Assistant Engineer Ripley, as inspector, has secured a month's leave of absence, and is in charge of the engineering work of Dunbar & Sullivan, and directs the work of their dredges. Mr. Morris may ultimately resign to make this position permanent.

NEWS MAN.

BUFFALO.

Special Correspondence to The Marine Record.

This port is badly jammed with grain-laden vessels. The blockade is not likely to improve much before navigation closes.

Capt. A. H. Gain has recovered sufficiently to resume command of the Bulgaria.

Hingston & Woods' dredges and scows have gone to Erie, where they have some work.

Harry Lowe, a deckhand on the Mariposa, was given six months Monday for stealing \$32 from John Berg, a fireman on the same ship.

The mayor has vetoed a resolution looking to the appropriation of lands on the water front at Georgia street, to be used for excursion dock purposes. He thinks the best site, involving the least expense, is between Porter avenue and Jersey street.

LORAIN.

Special Correspondence to The Marine Record.

Mr. J. Steng estimates that it will cost \$38,000 to complete the harbor improvement here.

Mr. J. B. Coffinberry stated to the Chamber of Com-

merce a few evenings ago, that the erection of the four Johnson blast furnaces will swell Lorain's ore receipts by 600,000 tons and will bring in 200,000 tons of lime stone. If 12 are built, which is quite possible, these figures will be tripled.

Kishman & Sons have been obliged to make Lorain their fish shipping point instead of Vermillion, owing to the shallow water at that port.

Max Morehouse has purchased the little steamer Yaltaw at United States Marshall's sale for \$450. She is worth about ten times that figure.

The steel plant has put out about 125,000 tons of product up to the present.

CLEVELAND.

Capt. George Warner, harbor master at this port, calls attention to the large number of bridges over the Cuyahoga which are without roadway protection of any sort. Accidents have been narrowly averted at one of the Seneca street bridges and at Main street bridge since the horror on Central Viaduct. Capt. Warner suggests that a very strong wire, tested to a resistance of thirty tons, be stretched at each end of these unprotected bridges, with a lantern hung in the center at night, and possibly a red flag by day, to prevent people from driving into the river. The cost for each bridge would be less than \$25, but extra guards would have to be hired.

The steel canal fleet did not get back in time to make their third trip to New York before the Erie canal closed, and will winter here and at Lorain.

Chief Shipping Master A. R. Rumsey issued very elaborate invitations to a fish dinner at his headquarters below Main street bridge, Saturday, the 30th, which received general response on the part of the vessel owners and ore and coal men. About seventy-five were present. The tables were tastefully decorated with large bouquets of chrysanthemums, which soon found their way to the button holes of the guests. The fish were just as delicious as usual, and disappeared speedily. A large quantity of other edibles shared the same fate. "Rum" was everywhere in demand, but there were a few other good things to wash the fish down. A colored quartet furnished plenty of vocal music, and after dinner the sporting tastes of the gentlemen present were gratified by three very good sparring matches. Several pictures of Capt. Rumsey, taken en group as he appeared during his late starring tour through Japan in "The Mikado," also proved a great attraction to the visitors.

Julius C. Mengendorf, formerly ticket agent for the D. & C. Company, is making a record in his new position as traffic manager for the A. B. & C. electric railway line.

ARENA FOR DECEMBER.

The Arena has reduced its price to 25 cents per copy with the December issue, and the current number which opens the new volume is exceptionally strong. Personal recollections of Lowell, Emerson, Holmes, Whit-tier, and Bryant, by such thinkers as Rev. Minot J. Savage, Rev. Edward Everett Hale, Rev. John W. Chadwick, will prove exceedingly interesting to those interested in America's great poets. This symposium is illustrated with magnificent portraits of all the above named poets. Another feature of this number is from the pen of the eminent French author, Henry Gaullieur, entitled "The Wonders of Hypnotism as Recently Demonstrated by Leading French Scientists." Prof. Richard T. Ely, of the University of Wisconsin, and Justice Water Clark, LL. D., argue in favor of Governmental Control of the Telegraph. Prof. George T. Herron contributes an admirable paper on "The Opportunity of the Church in the Present Social Crisis." The editor contributes a biographical sketch of the life of Sir Thomas More. Will Allen Dromgoole opens her brilliant serial story of Tennessee life, entitled "The Valley Path," which will run during six issues of The Arena. The frontispiece is a fine portrait of Prof. Richard T. Ely. There is also a full page portrait of Miss Dromgoole in her mountain costume—"Out for a Day's Fishing." In the body of the magazine there are more than 200 pages.

LATE REPAIR NOTES.

The tug George Nelson will probably be given extensive repairs and improvements at Sturgeon Bay this winter.

Leathem & Smith want to buy the Otego, wrecked in Sturgeon Bay. They may raise and rebuild her this winter.

The schooner Montgomery, which the gale quickly transformed from a schooner into a barge, is at Port Huron, minus her gear.

The Belle Cross has a badly damaged shoe, and may have to winter at the Saul. She is repairing at Dunbar & Sullivan's yard.

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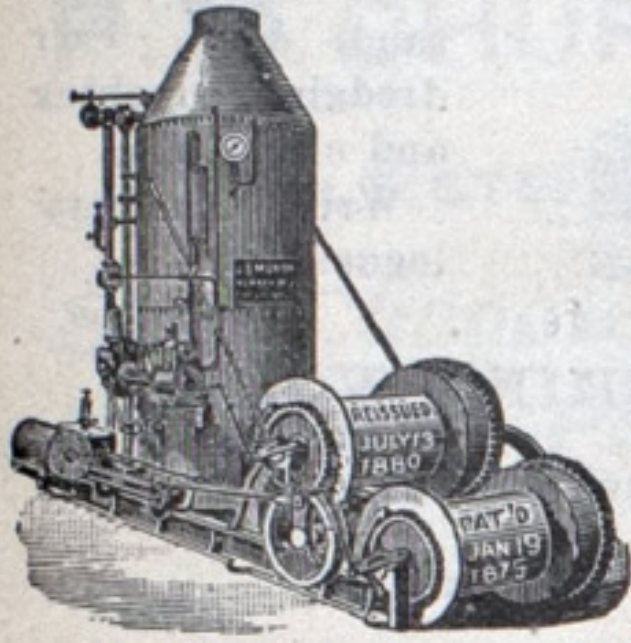
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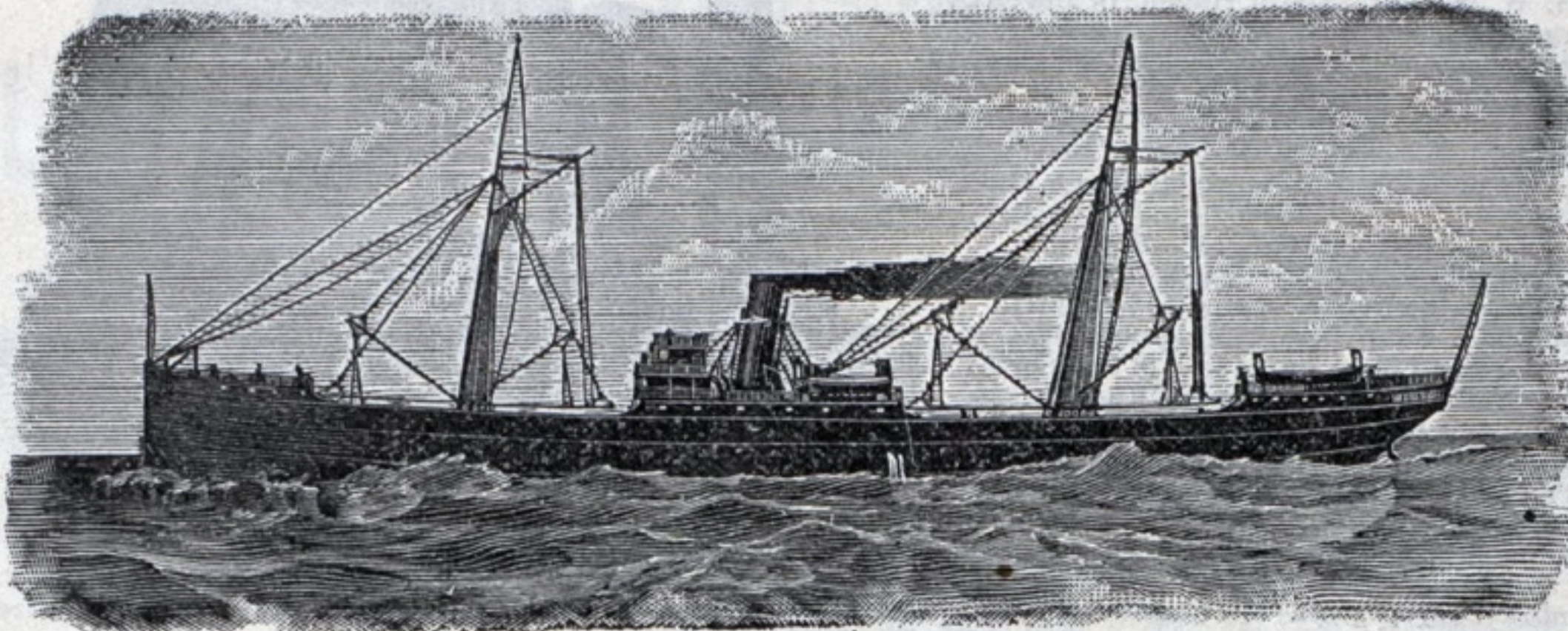
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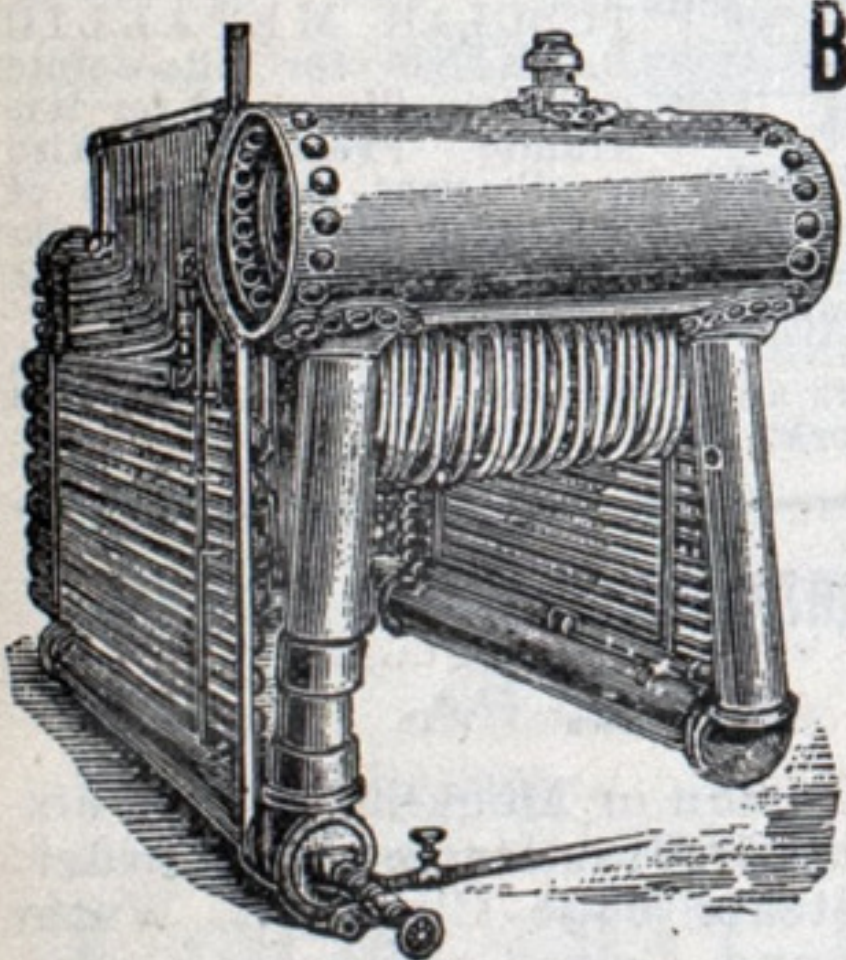
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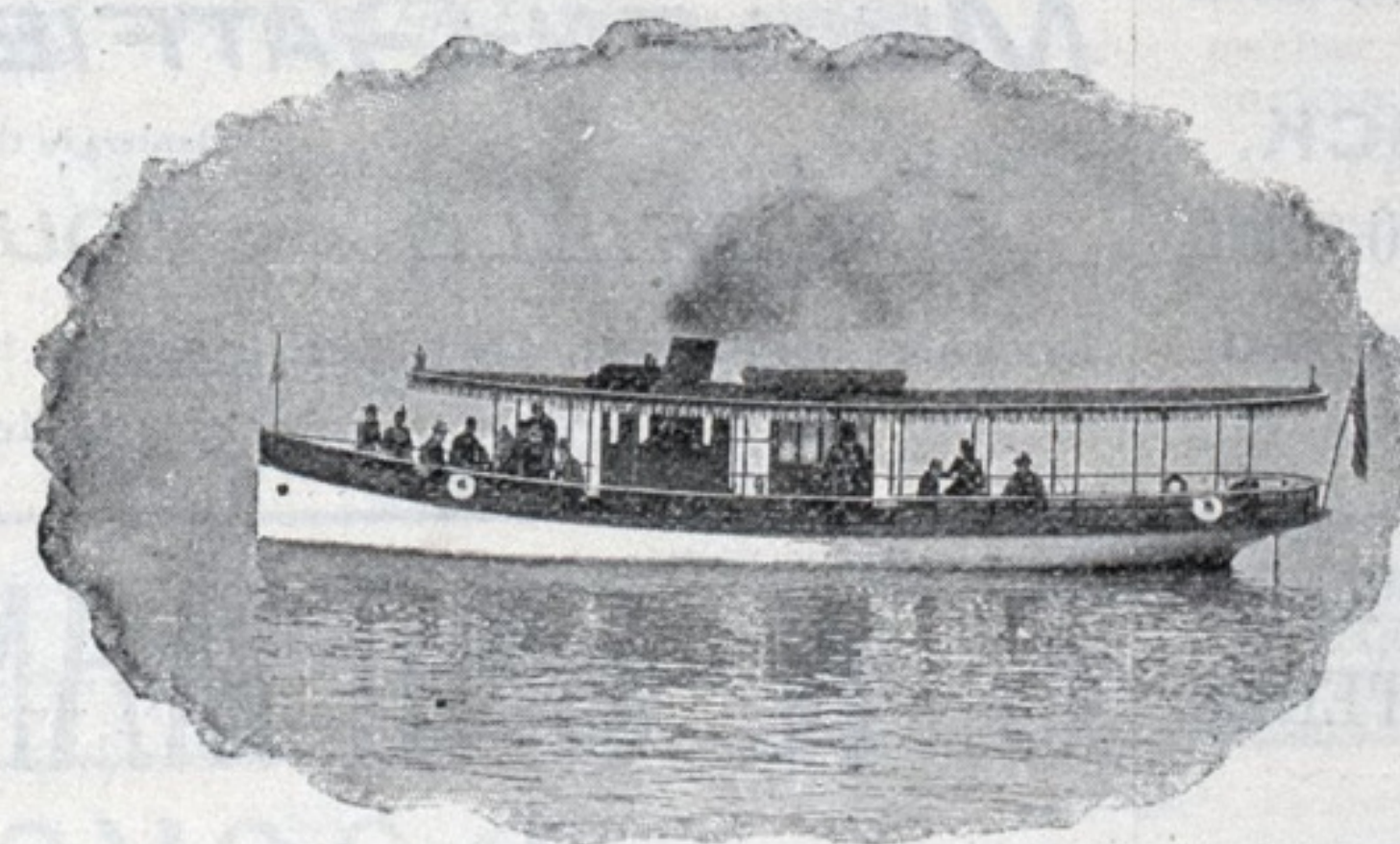
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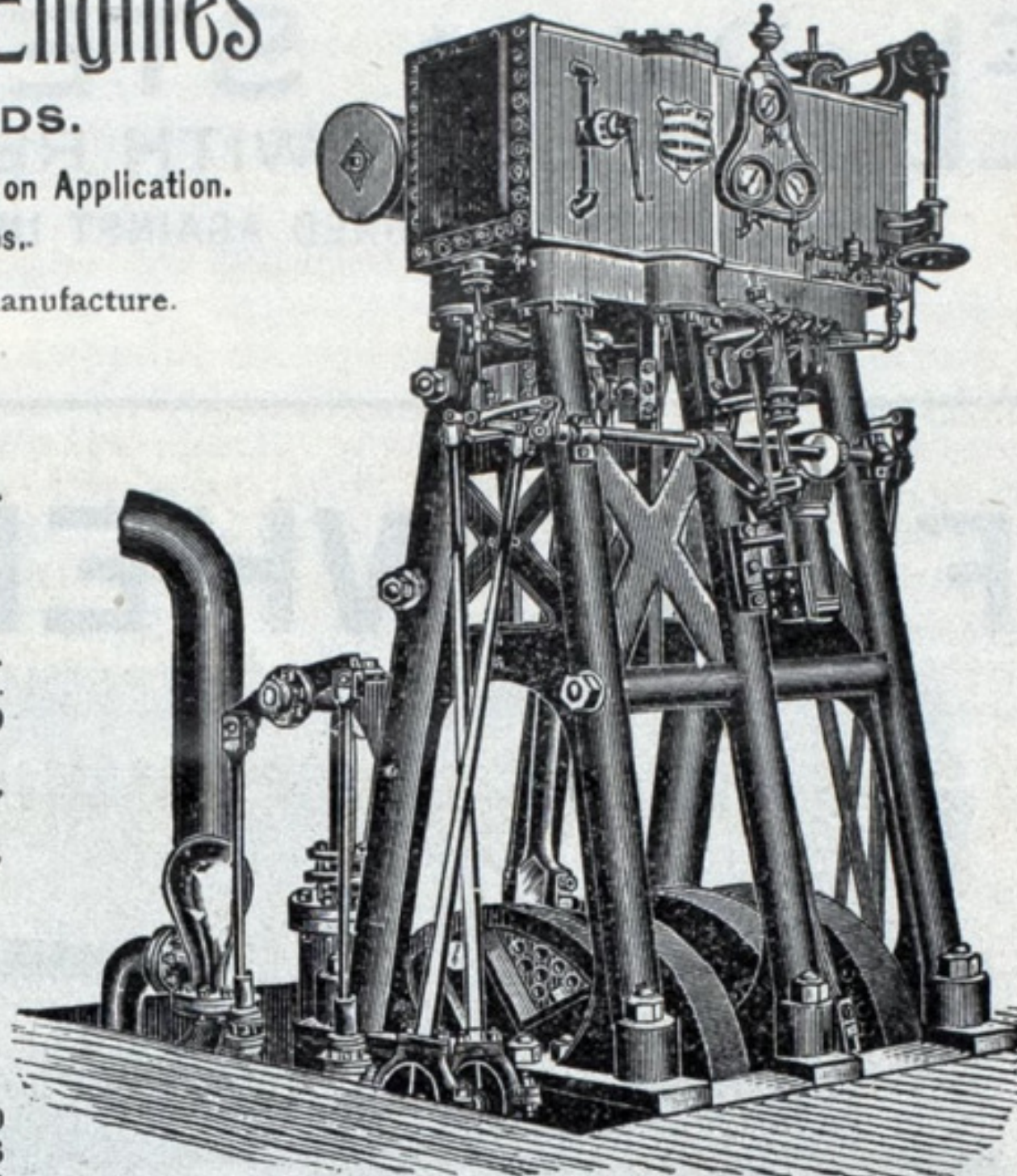
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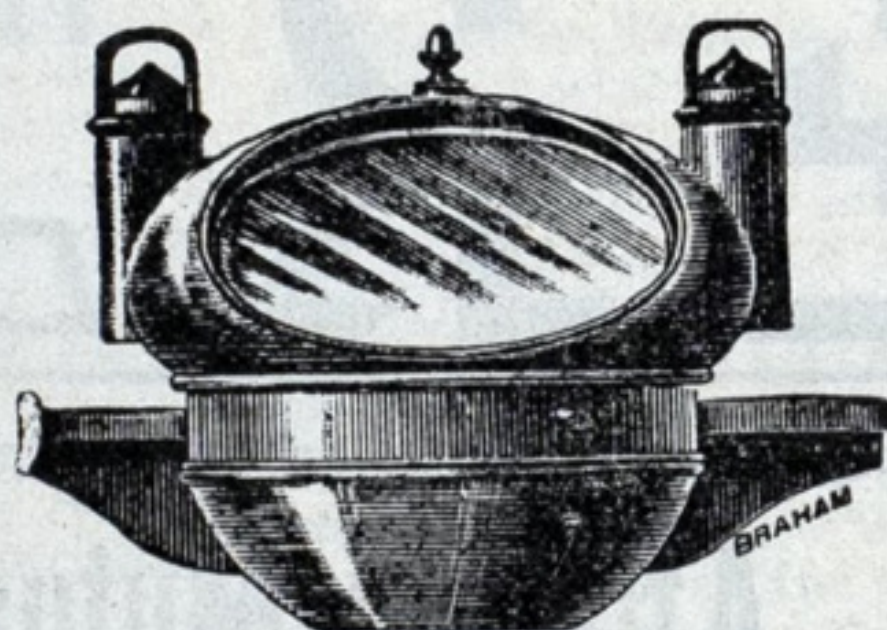
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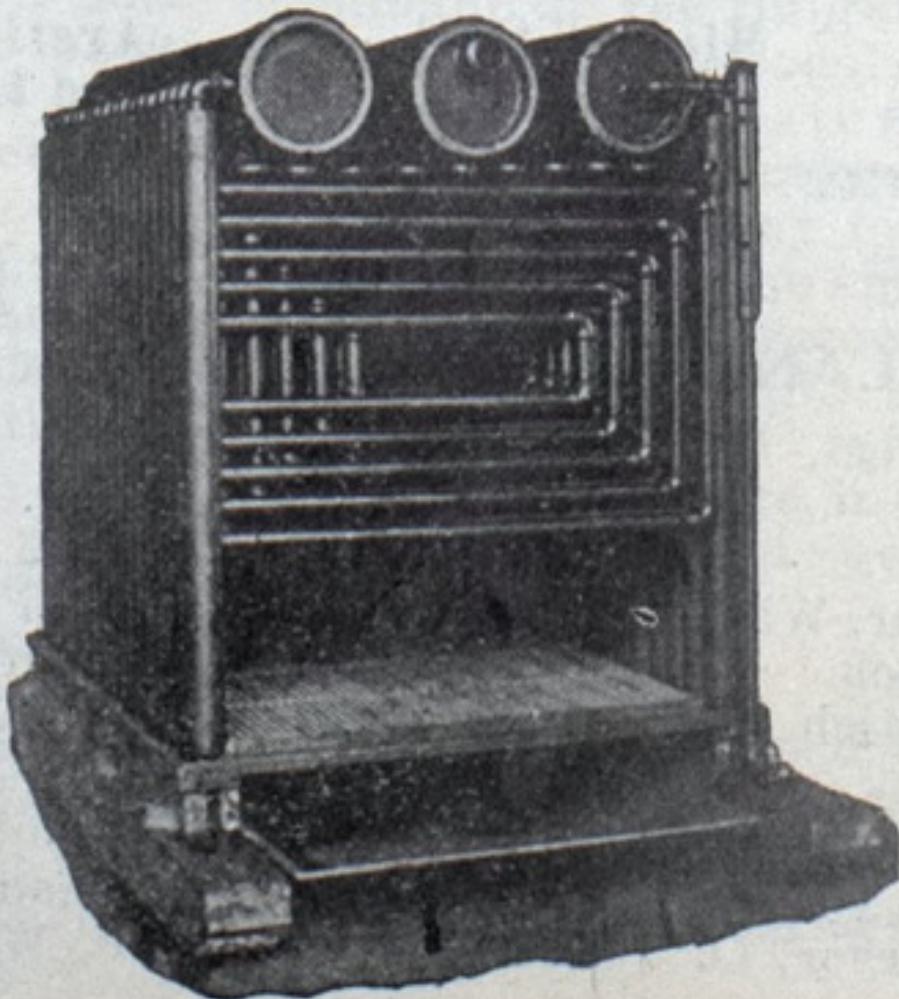
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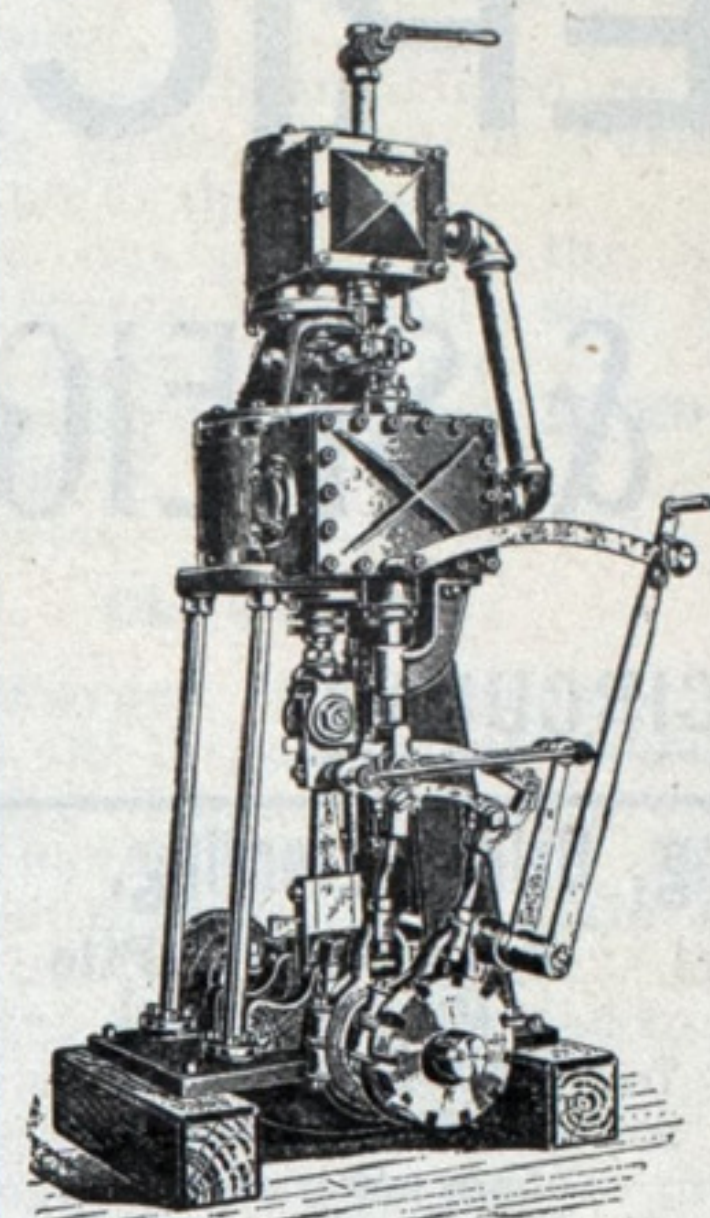
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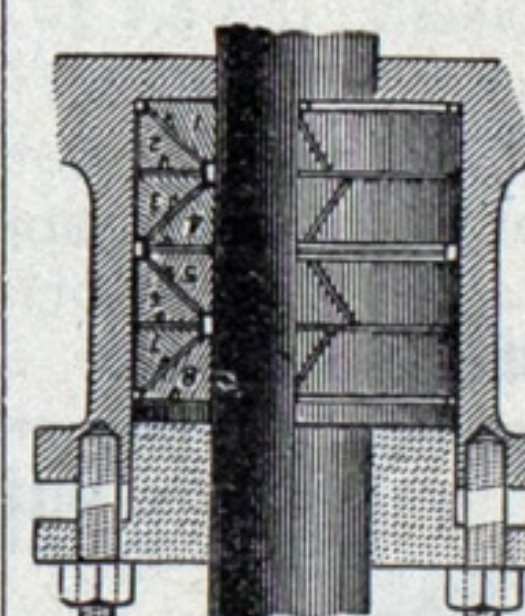
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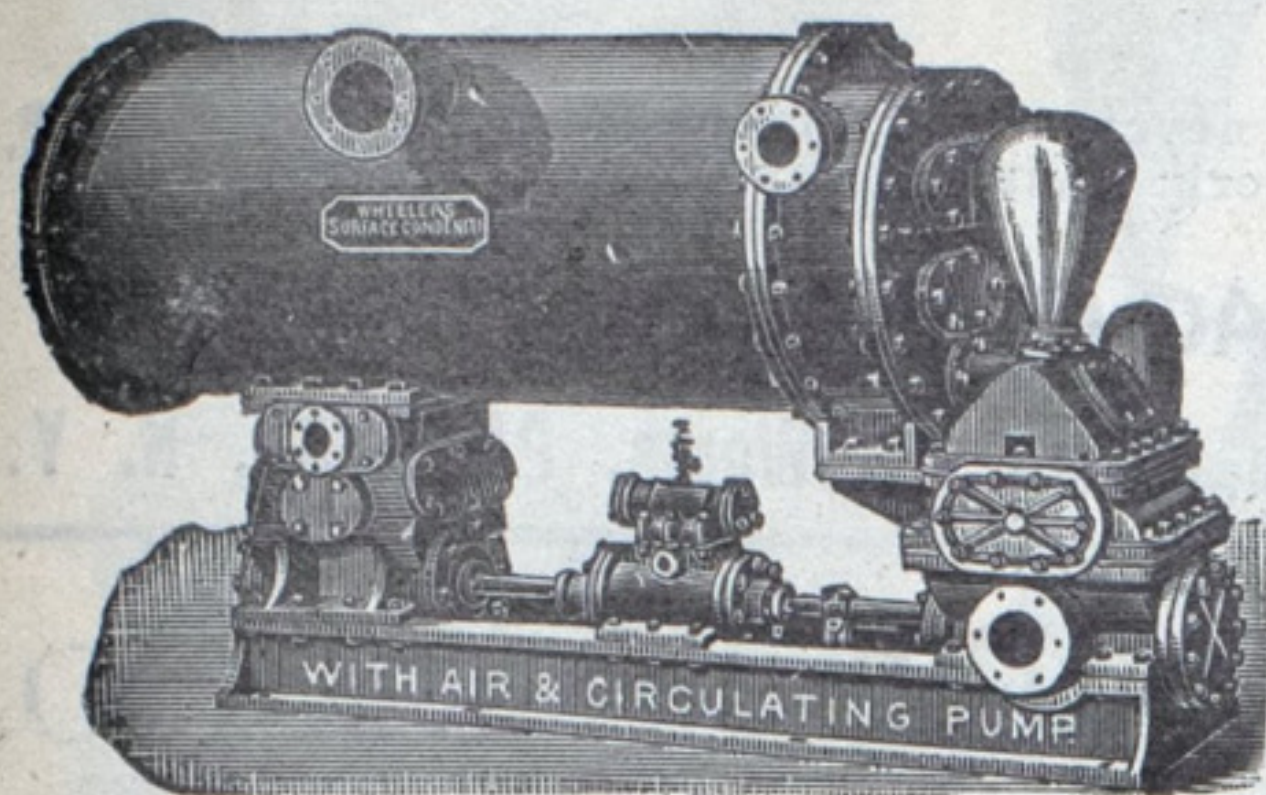
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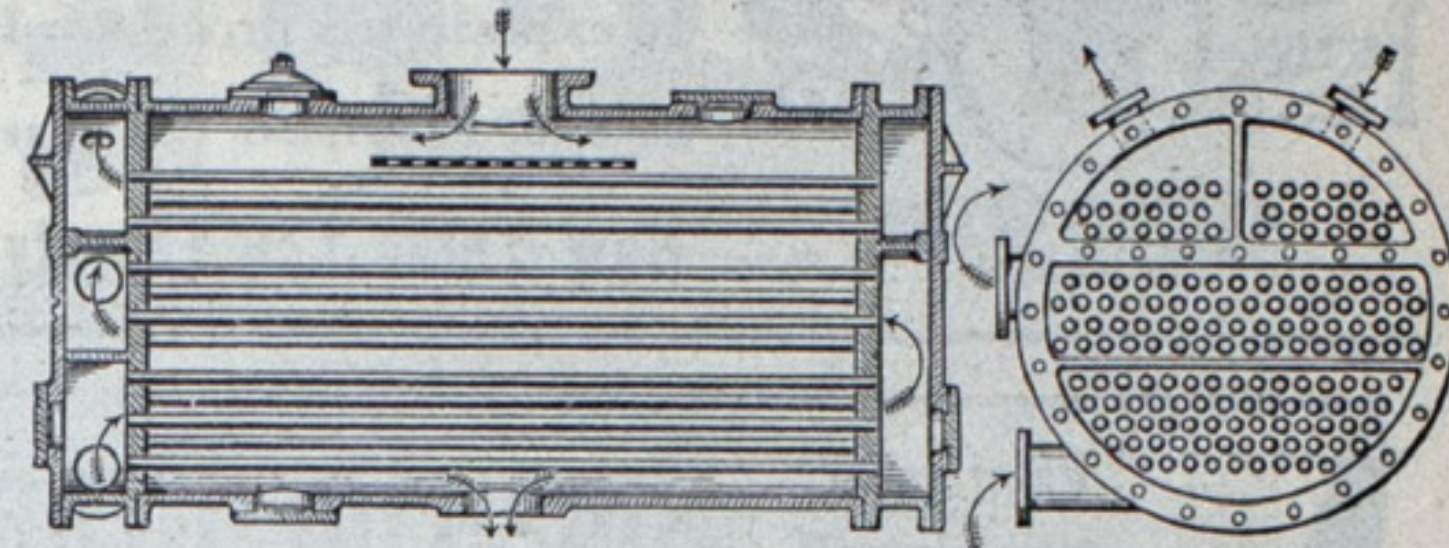
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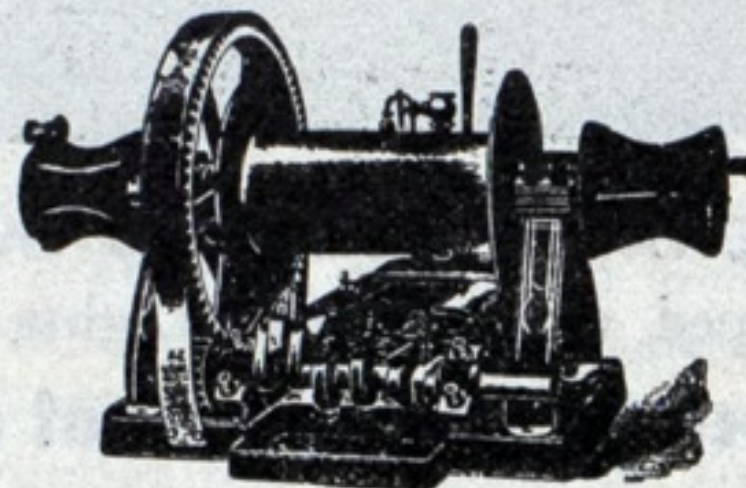
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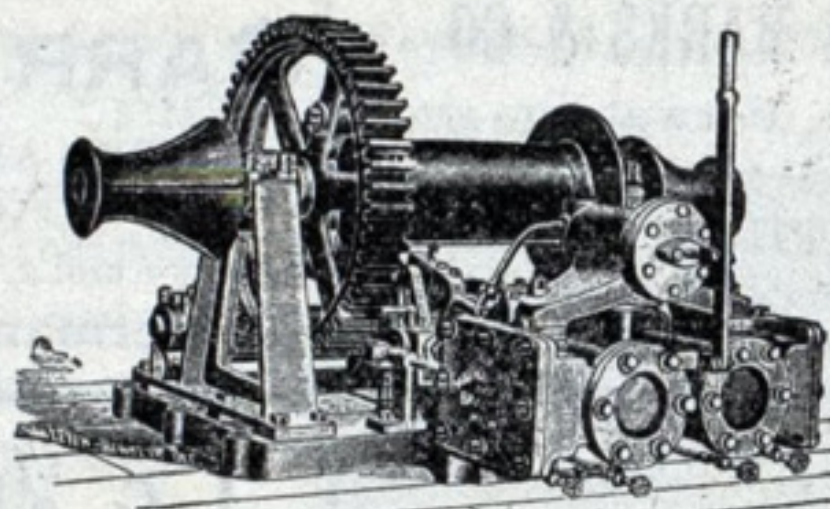
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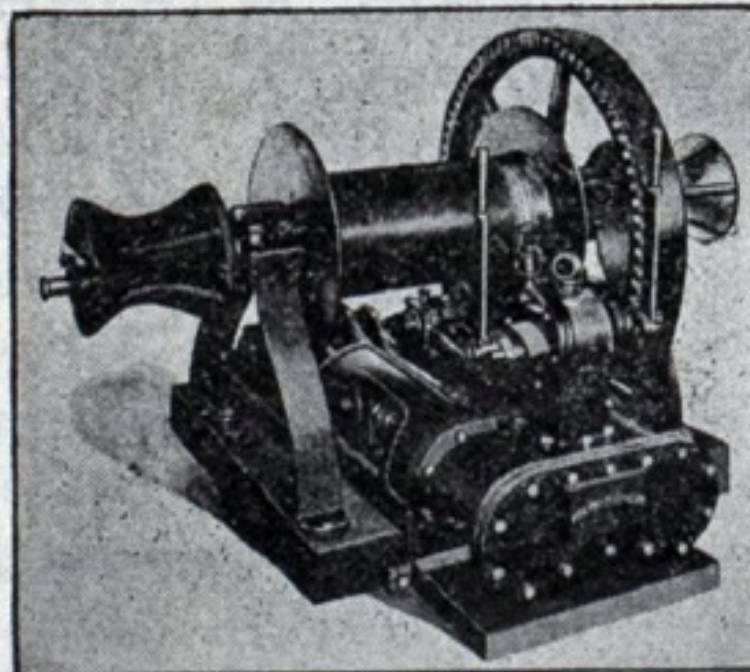


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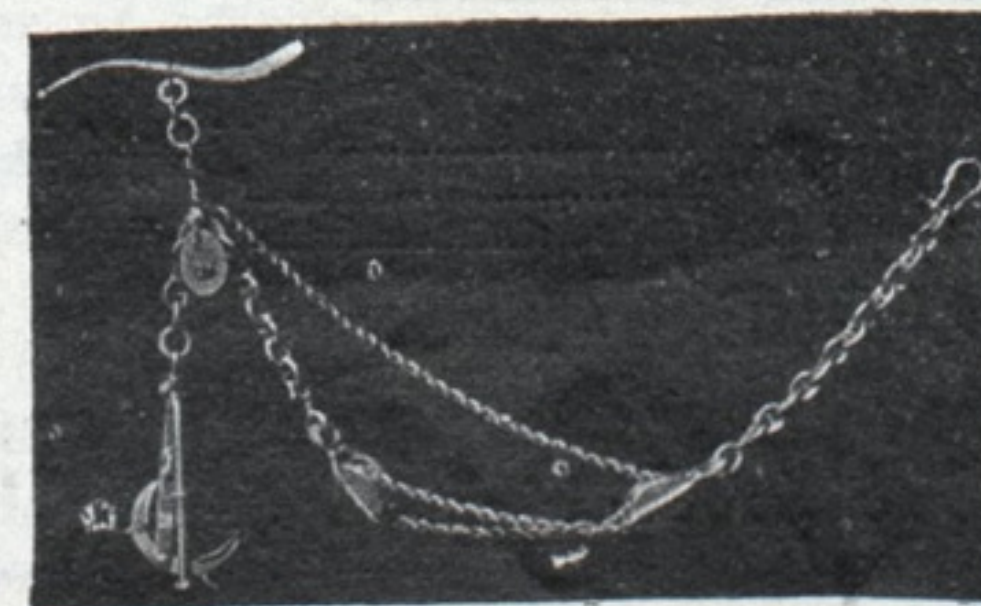
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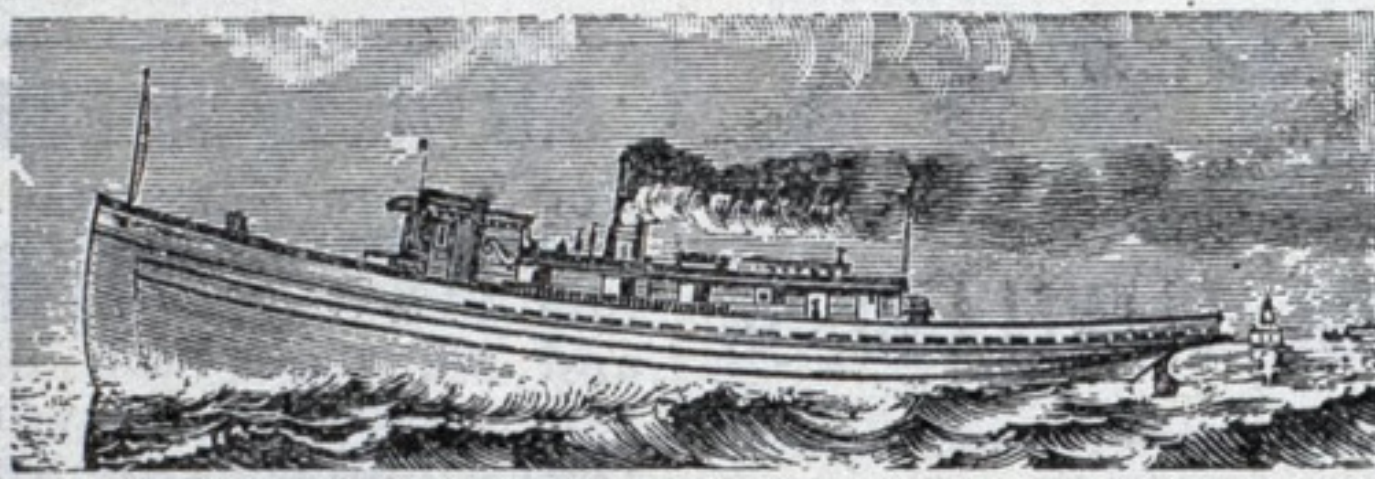
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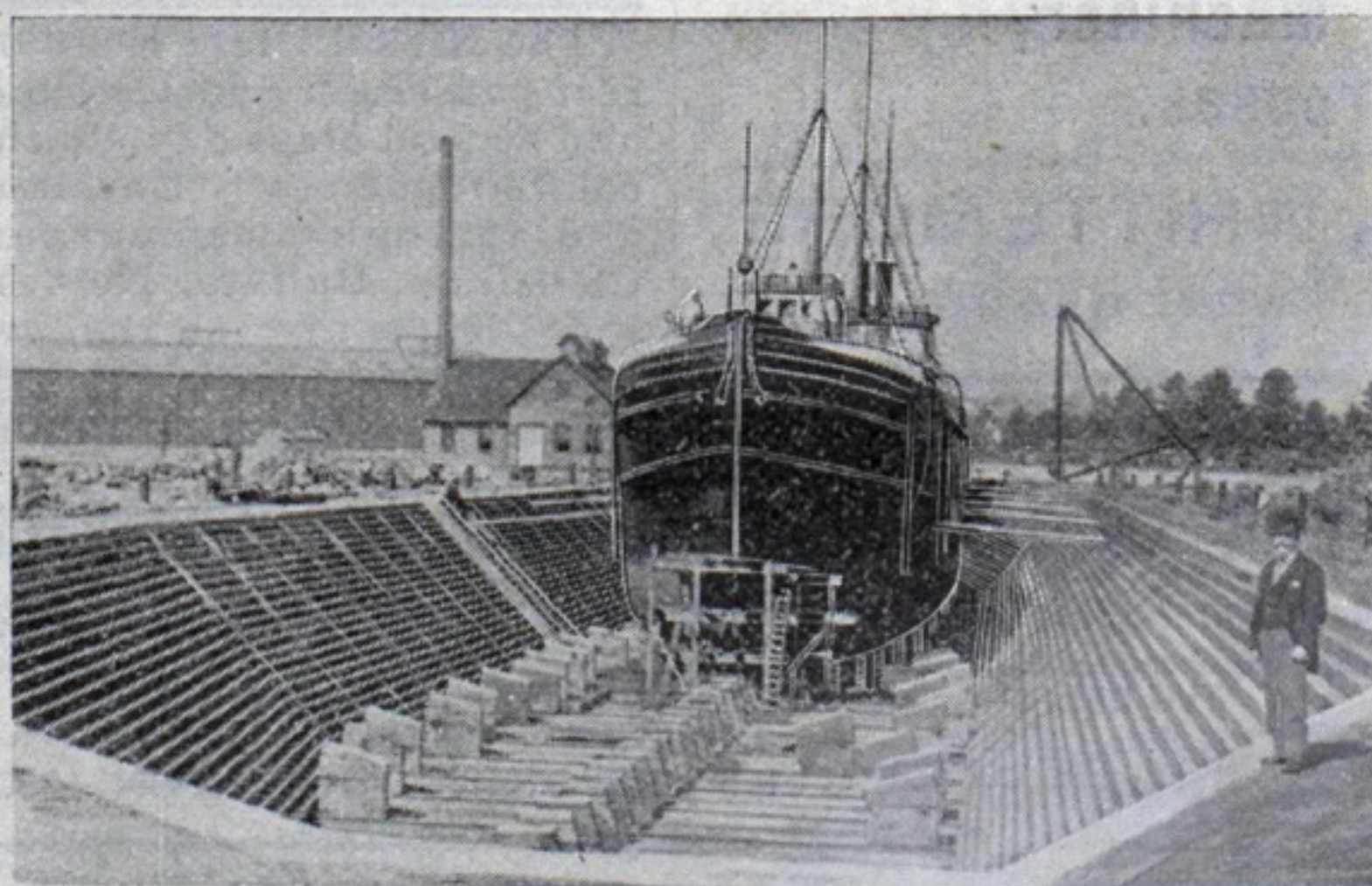
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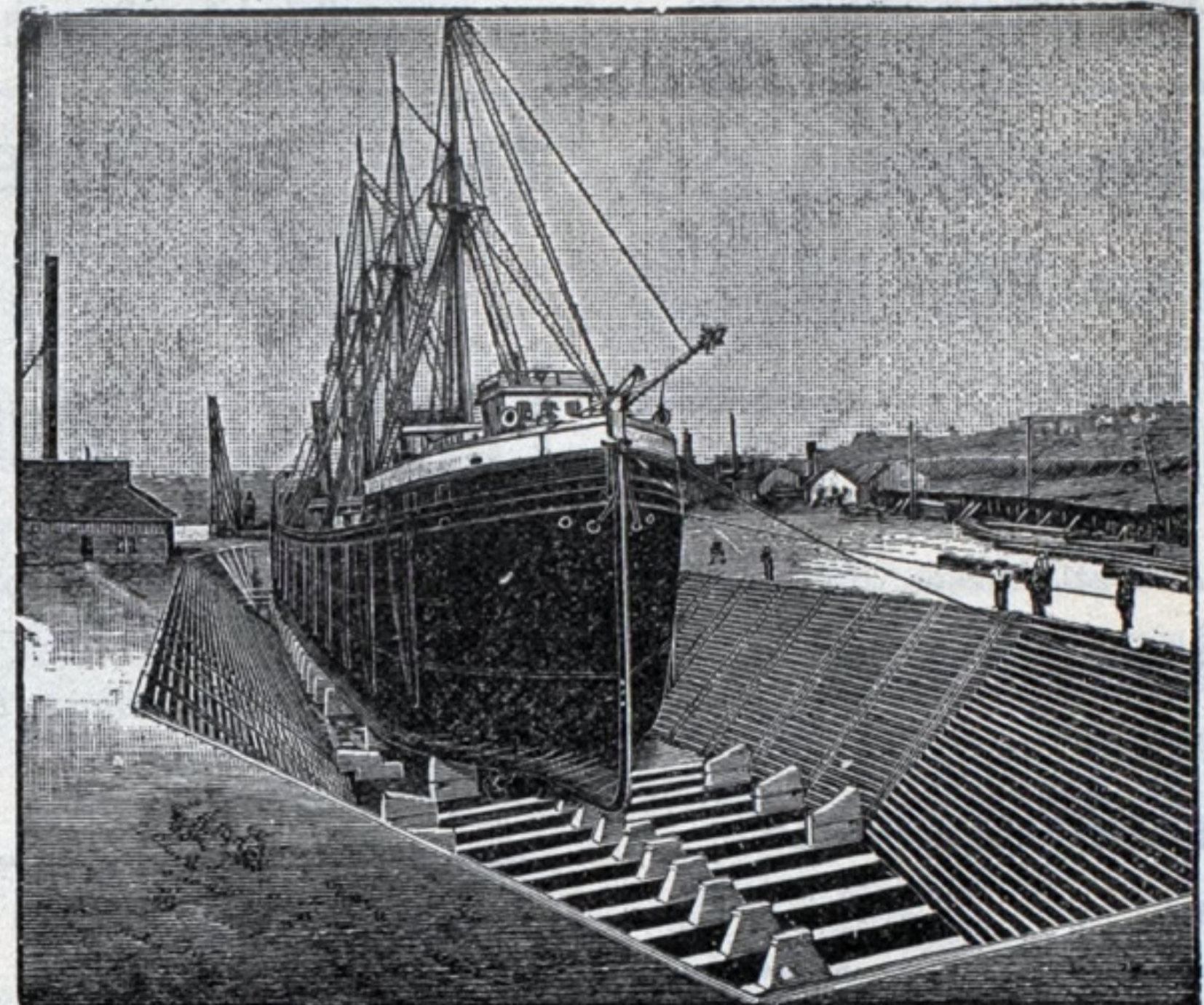
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